1	IN THE UNITED STATES DISTRICT COURT				
2	FOR THE SOUTHERN DISTRICT OF TEXAS HOUSTON DIVISION				
3	DORIS DENISE NORRIS, ) NO. 4:16-CV-2424 INDIVIDUALLY AND AS NEXT ) FRIEND OF M.N., AN INJURED )				
5	MINOR ) Houston, Texas ) 1:29 p.m 4:54 p.m.				
6	VS. OCTOBER 5, 2018				
7					
8	KAWASAKI MOTORS CORP., USA, ) ET AL )				
9					
10	**************				
11	JURY TRIAL				
12	(DAY 5)				
13	BEFORE THE HONORABLE CHIEF JUDGE LEE H. ROSENTHAL				
14	UNITED STATES DISTRICT JUDGE				
15	TRIAL TESTIMONY OF KEVIN BREEN				
16	**************				
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1
           (Jury in.)
         2
                       THE COURT: Please be seated, ladies and
         3 gentlemen. The plaintiff having rested, it is now
         4 Kawasaki's opportunity to present witnesses, in addition to
         5 cross-examining the plaintiffs' witnesses, which it has
01:29:30
         6
          done.
         7
                       MR. MUELLER: Thank you, Your Honor. At this
         8 time the defendants would like to call Mr. Kevin Breen to
         9 the stand.
                       THE COURT: All right. Is he here?
       10
01:29:37
       11
                             Come on up, please, sir. You can pause
       12 there and raise your right hand to be sworn.
       13
                             (Witness sworn.)
       14
                       THE WITNESS: Yes, I do.
                       THE COURT: If you could take the witness
       15
01:30:03
       16 stand. And as you testify, lean forward and pull that mic
       17 towards you. You have to speak closely into it. It does
       18 not pick up well from a distance.
       19
                                 KEVIN BREEN,
       20 duly sworn, testified as follows:
01:30:20
       21
                                DIRECT EXAMINATION
       22 BY MR. MUELLER:
       23
               Good afternoon, Mr. Breen.
           Q.
       2.4
           A. Good afternoon.
       25
           Q. First of all, please state your name for the record.
01:30:24
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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- 1 A. My name is Kevin Breen.
- 2 Q. And just as an introduction, can you -- where do you
- 3 work? Can you tell me a little bit about yourself?
- 4 A. I work for a company called Engineering Systems, or
- 01:30:37 5 ESI.
  - 6 Q. And what is -- what is ESI?
  - 7 A. We are a consulting and engineering firm of about 250
  - 8 people that do a variety of work and do standards
  - 9 development, testing, research. We also get involved in
- 01:30:55 10 loss investigation of various types: Explosions, fires,
  - 11 crashes, airplane events, things like that.
  - 12 **Q.** How many -- how many engineers work at ESI?
  - 13 A. I think there is about 120, or something like that.
  - 14 Q. Do you have a number of different offices?
- 01:31:17 15 **A.** Yes.
  - 16 Q. How many different offices do you have?
  - 17 A. I think there is about 15.
  - 18 Q. Okay. And can we pull up Exhibit 119, please?
  - 19 Of the offices that you have, do you have
- 01:31:39 20 any offices in Texas?
  - 21 A. Yes, as a matter of fact, we have got an office in
  - 22 Conroe, and the vehicle that I understand the jury looked
  - 23 at earlier this week was actually stored there and brought
  - 24 down by one of the guys from there.
- 01:31:52 25 Q. Okay. And so, at 119, is this a copy of your CV?

- 1 A. Yes, it is.
- 2 Q. Okay. Now, I am looking here, if we look at the top
- 3 part, it refers to you, you're a managing principal and
- 4 director of marine and automotive research engineering at
- 01:32:13 5 ESI. Tell me, what is the automotive and marine -- marine
  - 6 and automotive research for ESI?
  - 7 A. Well, it's one of the practice groups within the
  - 8 company, and by the title it's focused in -- basically on
  - 9 vehicle-type things or marine-type things. I generally
- 01:32:31 10 refer to it as "things with engines and/or wheels." So it
  - 11 would be a broad range of automotive and/or marine
  - 12 applications.
  - 13 Q. Okay. And how long have you been working at ESI?
  - 14 A. Since 2001.
- 01:32:45 15 Q. Okay. Where did you work before that?
  - 16 A. I had my own company.
  - 17 Q. Okay. And what was that called?
  - 18 A. It was called Breen Associates.
  - 19 Q. All right. And could you give the jury some sense of
- 01:32:55 20 your educational background?
  - 21 A. Sure. I first received a Bachelor of Science in
  - 22 Engineering from the University of Illinois. It was from
  - 23 the Department of Materials Engineering. It dealt with
  - 24 design use of materials, design how materials bend, break,
- 01:33:13 25 and deform when loads are applied to them, and to some

- extent to help with basic mechanical engineering 1 2 principles as well.
- 3 I then continued my education and received a Master's in Industrial Engineering at a school called 4 Midwest College of Engineering, with the focus in the area 5 01:33:25 of human factors.
  - 7 Okay. And do you -- are you -- are you a licensed 8 engineer?
  - 9 Α. Yes, I am.

6

01:33:52

01:34:08

20

- And explain to the jury what that means to be a 10 01:33:34 11 licensed engineer.
  - 12 Well, it's a process that you go through that has Α. certain steps to it, and the first one is having an 13 14 accredited engineering degree. The next step is having some number of years of documented experience, and then 15
  - you're required to take a test on engineering principles, 16 17 and then take a test on application to engineering, and
  - 18 then there is also a test related to -- sort of the
  - 19 practice of engineering in terms of what engineers are
  - 21 drawings, and things of that nature. And then at least in

supposed to do from a legal standpoint due to stamping

- 22 most states, a requirement to have an ongoing continuing
- 23 education for the rest of your career.
- 24 Now, you -- it says -- I am looking here under 25 education. You have engineering degrees both from the 01:34:24

University of Illinois and the Midwest College of 1 Engineering; is that right? 2 3 Yes, sir. Α. Okay. Now, if we go over to the next page, under 4 5 your professional affiliations and honors, I would like to 01:34:35 talk to you -- the very first thing you have listed up 6 7 there is the Society of Automotive Engineers. Can you --8 can you tell the jury a little bit about what the Society 9 of Automotive -- or what you refer to here as also SAE, what that is? 10 01:34:57 Sure. SAE is a group of technical people worldwide 11 12 that deal with a wide range of automotive applications, maybe automotive applications in cars, in airplanes, in 13 14 construction equipment, agricultural equipment, marine equipment, and, you know, they -- they develop standards 15 01:35:16 and technical information regarding these products. 16 17 And, for example, I am going to say that 18 there is probably hundreds of SAE standards that relate to 19 the cars we drive every day. And so for each of those 20 standards there was a committee on SAE that got together, 01:35:31 21 technical people that were knowledgeable about that particular aspect of the vehicle, and developed those 22 23 standards, and then update those standards on a regular 2.4 basis. 25 So, for example, if you go to Jiffy Lube 01:35:43

this weekend to get the oil changed in your car, and the 1 2 guy, you know, at this place says, Okay, I am going to 3 change your oil. What kind of oil do you want? And you say, Well, I will take -- he says, Okay, do you want 4 SAE -- 10W30, and that is one of the choices you would 5 01:35:56 There is an SAE committee that determined what it 6 7 means to have 10W30 oil as opposed to 40-weight oil, or 8 something like that. 9 But pretty much every part of the car, 10 every part of an automotive product, has some sort of an 01:36:09 SAE committee that has developed standards or test 11 12 criteria with that part or product. 13 And do -- and do many of these standards relate to Ο. the safety aspects of the products? Sure. A lot of them do. Obviously, oil, you're more 15 01:36:25 concerned about the car engine not seizing. There are 16 17 standards for seatbelts. There are standards for 18 headlights, brakes, vehicle handling, how to test vehicle 19 handling, pretty much, you know, everything you can think 20 of. 01:36:41 21 Now, looking down under this column here for SAE, it looks like you have a list of, looks like, five committees 22 23 there. Are these committees that you have served on? Yes. There is actually four. One of them I have had 24 25 two different roles on, but there is four committees 01:36:59

- 1 there.
- 2 Q. Oh, I see. Okay. So that first one, the Special
- 3 Purpose Vehicle Committee, I guess, you have been a member
- 4 since 1988, it says, and then -- but you also were the
- 01:37:12 5 chairman of that committee from 1988 to 2003. Is that --
  - 6 do I understand that correctly?
  - 7 A. Yes. That's correct.
  - 8 Q. Okay. Now, can you tell the jury, what is the --
  - |9| that's a little -- what is the special purpose vehicle? I
- 01:37:26 10 mean, what is a special purple vehicle?
  - 11 A. Well, as the term would describe, it is a vehicle
  - 12 with a special purpose, unlike say a motorcycle or a
  - 13 passenger car or a light truck or something like that.
  - 14 The Special Purpose Vehicle Committee was created to
- 01:37:41 15 evaluate and provide standards and technical information
  - 16 for vehicles that have a special purpose, utility vehicles
  - or closed community vehicles or all-terrain vehicles or
  - 18 things like that.
  - 19 Q. Well, we have had some -- heard some evidence in this
- 01:37:56 20 case about a standard called SAE J2258. Now, are you
  - 21 familiar with J2258?
  - 22 **A.** Yes, I am.
  - 23 Q. Do you know, approximately, what the first year was
  - 24 of the 2258 standard?
- 01:38:10 25 A. I believe it was published in the mid '90s. I want to

- 1 say about 1996. The work began on it, I believe, in about
- 2 1994, but somewhere in that time frame.
- 3 Q. Okay. Now, would -- do I -- in relationship to the
- 4 Special Purpose Vehicle Committee, what is its
- o1:38:29 5 relationship with J2258?
  - 6 A. That's the committee that actually developed that
  - 7 standard. So, there was a group put together within the
  - 8 Special Purpose Vehicle Committee that did the research,
  - 9 did the work, and developed that standard.
- 01:38:42 10 Q. So if I'm trying to put the pieces of the puzzle
  - 11 together here, would I understand at the time that
  - 12 standard was initially passed in the '90s, that you were
  - 13 actually the chairman of the committee that adopted that
  - 14 standard?
- 01:38:57 15 **A.** That's correct.
  - 16 Q. Okay. Now, let me -- let me just pause you right
  - 17 there. I think the jury has heard some testimony to the
  - 18 effect that these SAE committee meetings are secret
  - 19 somehow, that nobody is allowed to go but inner circle
- 01:39:15 20 people or things of that kind. Can you explain to the
  - 21 jury when these committee meetings are held what the
  - 22 process is and how that all works?
  - 23 A. Well, it's changed over the years as the Internet has
  - 24 become more prevalent, but basically the -- there are
- 01:39:29 25 announcements that are sent around, or posted on the

1 Internet now, for committee meetings and they are open to 2 the public. There are people that are members of the 3 committee that actually do the work, do the research, and ultimately vote up or down on whether to approve a 4 5 standard or recommended practice. But anybody can attend 01:39:46 a meeting, anybody can participate, submit data, submit a 6 7 view on something. 8 There has been times in some of the 9 committee meetings when there is an equal number of people 10 in the room that are actually on the committee or people 01:40:00 that are there just to participate because it's a 11 12 technical area that they know something about and they want to make sure that their input is considered by the 13 14 committee. And do these committees, and particularly the special 15 01:40:10 purpose committee, do they actually send out public 16 17 notices so that if you weren't a member, you would know 18 where to show up and, you know, get -- how to get there? 19 Sure. There is also an opportunity to do a call-in, or a Webex, or something like that. It is a pretty 20 01:40:25 21 transparent way. You just have to know to ask, I quess. 22 Okay. And then for the Special Purpose Vehicle 23 Committee, have there been occasions in which people from 24 the public at large have come in and to observe how -- the committee discussions and so forth? 25 01:40:41

	1	A. Oh, I'd say more than observe them. We have had
	2	people at the committee on a number of occasions that made
	3	presentations, that made demonstrations, things of that
	4	nature.
01:40:53	5	Q. All right. And now the the one that is applicable
	6	here that the jury has seen is the 2010 edition of J2258.
	7	In and around 2010, were there any government agencies
	8	that were that were members of the Special Purpose
	9	Vehicle Committee?
01:41:16	10	A. There were individuals who were employees of
	11	governmental agencies that were both members and
	12	participated in that, the committee at large, so to speak.
	13	Q. And when I are we talking about just one
	14	government agency or more than one?
01:41:30	15	A. No. There was back in that time frame I think
	16	there was there was someone from the Forest Service
	17	that they used special purpose vehicles a lot for forest
	18	issues, especially in firefighting, things like that. So
	19	they had an interest in how these vehicles were developed,
01:41:44	20	and there was a pretty active participant from that group.
	21	As I recall, there may have been someone
	22	there at that point in time from the Park Service. There
	23	was a representative there from Transport Canada
	24	they're equivalent to the Department of Transportation in
01:41:58	25	Canada that was interested in how those standards were
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- 1 developed for applications in Canada. And there were from
- 2 time to time people with CPSC that were involved in
- 3 reviewing that committee's work.
- 4 Q. Okay. Now, I want to go through the -- these other
- 01:42:12 5 committees, but I -- well, I guess I will, just briefly.
  - 6 The other committee you work on is the Special Vehicle and
  - 7 Equipment Division; is that right?
  - 8 A. Yes.
  - 9 Q. Now, what is the Special Vehicle and Equipment
- 01:42:26 10 Division of SAE?
  - 11 A. Well, from a structure standpoint, SAE is set up like
  - 12 a big company. It is -- it's got hundreds of thousands of
  - 13 members, and so the Special Vehicle Equipment Division is
  - 14 a division that handles a number of specialty type of
- 01:42:40 15 things.
  - For example, motorcycles fall under that
  - 17 division, personal water craft, marine technology. The
  - 18 special purpose vehicles fell -- fall within that
  - 19 committee. And so there was both an executive committee
- 01:42:53 20 who kind of oversaw the operation of the individual
  - 21 committees and then the individual committees.
  - 22 Q. All right. And so you were on the executive
  - 23 committee of those division -- I guess, what you're saying
  - 24 is the division kind of oversees all these other
- 01:43:08 25 committees?

Right. It's a grass-roots organization where things 1 Α. 2 basically come up to the members, or from outside in to 3 the membership. The committee works up standards, recommended practices, technical information, whatever; 4 but at some level, it is just like with any large 5 01:43:20 6 organization, somebody has to oversee to make sure that it 7 is relevant to be done, that it is following, you know, 8 accepted practices, that it is being run through the proper channels, and everybody that wants to have a say in what that standard or whatever ought to be has the 10 01:43:33 11 opportunity to be hired. 12 All right. Now, I won't go through the rest of the committee, but would -- tell me this. Is the -- is the 13 14 SAE, is that -- is this like a -- kind of an organization of people, volunteers? 15 01:43:48 16 There are a large number of volunteers, but there is A. also professional staff. 17 18 Oh, I'm sorry. I saw the problem with my question. 19 I mean, how about you, for example? Do you get 20 compensated for the time and effort you spend working at 01:44:01 21 all these safety standards? 22 No, I do not. Α. 23 All right. Now, moving on, under the affiliations and honors, it mentions here that you're a part of the 25 Human Factors and Ergonomic Society. First of all, can 01:44:15

- you tell the jury, when we're talking about either human factors or ergonomics, what is that area of endeavor? **A.** That is the scientific discipline of how people
  - interact with equipment in various environments. For example, human factors looks at reaction time, you know, if I am driving a car, how long does it take me to process information if the light changes from green, yellow, red.

It deals with how much force and effort I
can put into doing certain tasks like shifting a car or
pushing on a brake pedal. So it deals with certainly the
human element, so to speak. But it also deals with how
people process information in terms of there are -information communicated to people, how they understand

- it, in terms of using that information as a part of doing
  things or operating equipment.
- 16 Q. Is this an area -- well, first of all, can you tell
  17 the jury how many years you have been a member of the
  18 Human Factors and Ergonomic Society?
  - A. It's been a long time. I joined when I was in grad school while working on my research project with health and human factors, so that's probably been at least —
- 22 **Q.** A long time?

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01:44:35

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01:45:07

01:45:22

19

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21

- 23 **A.** -- 45 years ago, yeah.
- 24 **Q.** All right. But is this a -- is this an area of endeavor and study in which you -- you have expertise?

- 1 A. Yes, it is.
- 2 Q. Okay. And you have been -- you're here today
- 3 testifying, right?
- 4 A. Yes, sir.
- 01:45:46 5 **Q.** I guess you were retained in this case by
  - 6 Mr. Hawkins?
  - 7 **A.** Yes.
  - 8 Q. I guess you're billing Mr. Hawkins for your time and
  - 9 work here?
- 01:45:55 10 **A.** My firm is, yes.
  - 11 Q. Okay. Did -- let me ask you this. What's -- the
  - 12 next organization that you have achieved a membership in
  - 13 is the Association for the Advancement of Automotive
  - 14 Medicine. Can you tell the jury what that area of
- 01:46:13 15 endeavor is?
  - 16 A. Yes. That's a group of medical people, engineers,
  - 17 and scientists that look at what happens in car crashes,
  - 18 motorcycle crashes, pedestrian crashes, whatever, in terms
  - 19 of the human injury end of things, in terms of looks at
- 01:46:35 20 things like seatbelts, car seats, helmets.
  - 21 It also looks at state laws and federal
  - 22 laws, you know, the -- the AAA was one of the biggest
  - 23 proponents of seatbelt laws in this country. They also
  - 24 look at DUI issues and things like that to try to look at
- 01:46:52 25 sort of the whole picture of preventing injuries to people

- 1 that are using motorized vehicles.
- 2 Q. All right. Well, let's see if we can -- I am going
- 3 to -- Oh, I want to cover this last one. You are -- well,
- 4 the one down here, you say Society of Accident
- 01:47:10 5 Reconstructionists. Now, tell the jury what the area of
  - 6 accident reconstruction is.
  - 7 A. Well, accident reconstruction is the technical
  - 8 discipline of looking at how an accident happened. And,
  - 9 you know, typically a crash occurs in just a relatively
- 01:47:27 10 short time, you know, a couple of seconds or so. There
  - 11 may have been some things that led up to that where, you
  - 12 know, say it's an intersection collision where somebody is
  - 13 approaching a red light, another guy is approaching a
  - 14 green light, and they make decisions, but, ultimately,
- 01:47:40 15 boom, something happens, you know, in a very short period
  - 16 of time.
  - 17 And what accident reconstruction is, is
  - 18 it's in some ways a lot like -- like they do in a TV thing
  - 19 with a football game, you know, a football play goes in a
- 01:47:52 20 few seconds. Then they go back and look at it and show,
  - 21 you know, each viewpoint from the, you know, defensive
  - 22 line viewpoint, looking down the line to see where a block
  - 23 maybe got missed, or whether a guy, you know, was holding,
  - 24 or something like that that allowed that play to either
- 01:48:05 25 not go the way it was supposed to or go the way it did.

- 1 And that is what accident reconstruction is, going through
- 2 and looking at incrementally each of the little steps
- 3 along the way that had to happen in order for an accident
- 4 to occur.
- o1:48:16 5 If I was looking at what people recall in
  - 6 terms of their -- their observations about an accident,
  - 7 involves looking at the physical evidence, looks at
  - 8 applying the laws of science to it, and also sometimes
  - 9 involves testing and research.
- 01:48:32 10 Q. I am going to try and skip through the rest of this
  - 11 quickly.
  - Go on to the next page. For the top
  - 13 there, you have had an opportunity, you have been asked to
  - 14 teach certain classes in materials failure analysis and
- 01:48:47 15 accident reconstruction?
  - 16 **A.** Yes.
  - 17 **Q.** Below that you have listed a number of areas in which
  - 18 you have issued technical reports.
  - 19 **A.** Yes.
- 01:48:57 20 **Q.** You have taken a number of continuing education
  - 21 courses. And I -- if you go on to the next page, you list
  - 22 them all there, and I certainly won't go through them all,
  - 23 but you have -- it seems like you spent a good deal of
  - 24 your time continuing to keep yourself abreast of your
- 01:49:18 25 areas of endeavor?

- 1 A. Sure.
- 2 Q. All right. And then if we go back over to the final
- 3 page, it looks like a page and a half. Can you go through
- 4 those pages? Two pages?
- 01:49:33 5 A. Yes, something like that.
  - THE COURT REPORTER: When you turn away, I
  - 7 cannot hear you.
  - 8 BY MR. MUELLER:
  - 9 **Q.** We will start there. In any event, so you have 10 several pages of paper that you have written in a variety
  - 11 of fields?

01:49:57

- 12 A. Correct, generally dealing with accident
- 13 investigation, accident reconstruction, and vehicle stuff.
- 14 Q. And would it be fair for me to assume that this is
- 01:50:11 15 probably not the first time someone has asked you to come
  - 16 into a court of law to express your opinions on a case?
  - 17 **A.** It is not.
  - 18 Q. Okay. And have you been qualified in other courts
  - 19 before in the areas of accident reconstruction, design
- o1:50:26 20 analysis, and human factors?
  - 21 **A.** Yes, I have.
  - 22 Q. Okay. And are those the three principal areas in
  - 23 which you have devoted as far as your analysis in this
  - 24 case?
- 01:50:35 25 **A.** Yes.

- 1 Q. Okay. Now, I would like to -- Oh, I just want to
- 2 cover one thing quickly.
- 3 MR. MUELLER: If we can pull up Exhibit 20.
- 4 That's good.
- 01:50:54 5 BY MR. MUELLER:
  - 6 o. What is Exhibit 20?
  - 7 A. It's a copy of the 2010 version of SAE J2258.
  - 8  $\mathbf{Q}$ . Is that the standard that governs the -- let me --
  - 9 start with the predicate.
- 01:51:15 10 This case involves a 4010 KAF 620 Kawasaki
  - 11 MULE; is that right?
  - 12 **A.** Yes.
  - 13 Q. Okay. Is this the standard that applies to the 2013
  - 14 Kawasaki 4010 MULE?
- 01:51:28 15 **A.** Yes, it is.
  - 16 Q. Okay. Now, we have -- I think the jury has heard
  - some confusing evidence about the difference between
  - 18 standards and recommended practices. Let me ask you
  - 19 something about this. Does the SAE --
- 01:51:42 20 MR. WEST: Excuse me, Your Honor. I object to
  - 21 the sidebar about whether it was confusing.
  - 22 THE COURT: All right. Rephrase.
  - 23 MR. MUELLER: Yes, Your Honor.
  - 24 BY MR. MUELLER:
- 01:51:50 25 Q. Does the SAE issue publications that are actually

- 1 entitled "Recommended Practices"?
- 2 A. Yes, we do.
- 3 Q. Okay. And do they issue something like what we're
- 4 looking at right here where it says in the title, "Surface
- 01:52:07 5 Vehicle Standards"?
  - 6 A. Yes, they do.
  - 7 Q. Okay. So is the J2208 in the SAE terminology, is
  - 8 this a standard or is it a recommended practice?
  - 9 A. This document is a standard.
- 01:52:24 10 Q. Okay. And does the 2258, does it have criteria in
  - 11 it, or requirements in it, that would relate to occupant
  - 12 retention?
  - 13 A. Yes, it does.
  - 14 Q. Okay. And can you explain a little bit of that to
- 01:52:40 15 the jury? What about 2258 deals with issues of occupant
  - 16 retention?
  - 17 A. There's a couple of aspects of this standard that
  - 18 deals specifically with that. One is there's a provision
  - 19 for seatbelts, depending on certain criteria that the
- 01:52:56 20 vehicle may -- may or may not fall under. There is also
  - 21 criteria for handholds and hip restraints that also are a
  - 22 part of the occupant retention system.
  - 23 Q. I missed the last part of all that.
  - 24 A. Hip restraints.
- 01:53:12 25 **Q.** And --

- 1 A. And the part about the occupant retaining system.
- 2 Q. Okay. And as far as the occupant retention
- 3 requirements or specifications in 2258, did you as a part
- 4 of the work that you were doing for Mr. Hawkins, evaluate
- 5 whether this Kawasaki MULE complies in all those respects
  - 6 with the SAE standard?
  - 7 A. Yes, I did.
  - 8 Q. And can you tell the jury what your conclusions were?
  - 9 A. That the -- the vehicle involved in this -- this
- 01:53:41 10 matter of Kawasaki MULE 4010 does, in fact, comply with
  - 11 all of the occupant-retention requirements within this
  - 12 standard.
  - 13 Q. All right. Now, I want to briefly skip -- we are
  - 14 going to come back to this later. I want to briefly skip
- 01:53:54 15 over.

01:53:29

- 16 MR. MUELLER: Can you put up Exhibit 155?
- 17 BY MR. MUELLER:
- 18  $\mathbf{Q}$ . Tell the jury what Exhibit 155 is.
- 19 A. This is SAE J2358, the 2010 edition, which is a
- 01:54:18 20 standard that relates to low-speed vehicles.
  - 21 Q. Does J2358 apply to the Kawasaki 4010 MULE?
  - 22 A. It does not.
  - 23 Q. And can -- is there -- as far as you know, since
  - 24 you've held a number of pretty high positions at SAE, does
- 01:54:35 25 anybody at SAE think that the 2358, that you know of, that

- 1 the 2358 applies to the Kawasaki MULE?
- 2 MR. WEST: Objection, Your Honor. It calls for
- 3 speculation as to what other people know.
- 4 THE COURT: Rephrase it.
- 01:54:49 5 BY MR. MUELLER:
  - 6 Q. All right. Have you -- I take it doing all the
  - 7 volunteer work you do at SAE that -- let me go back.
  - 8 2358, that we have here, which committee
  - 9 is the committee that adopted 2358?
- 01:55:05 10 A. It would be the Special Purpose Vehicle Committee
  - 11 that I was chairman of.
  - 12 Q. So at the time this -- this is the same committee
  - 13 that you were the chairman of up until 2003?
  - 14 A. Correct.
- 01:55:15 15 Q. And the same committee that you were a member of in
  - 16 2010?
  - 17 A. Correct.
  - 18 Q. Okay. And has the committee, the Special Purpose
  - 19 Vehicle Committee, ever issued any statements that say
- 01:55:27 20 that this standard would -- would apply to the MULE?
  - 21 **A.** No.
  - 22 **Q.** Okay. And can you tell the jury why it doesn't?
  - 23 A. This standard was actually developed in response to
  - 24 what -- what I felt personally was an inadequate standard
- 01:55:43 25 that was developed by the Federal Motor Vehicle Safety

Standard for small vehicles that are golf-cart based 1 2 sometimes or little bubble vehicles that are driven on the 3 road in communities and things like that. 4 And there was a standard developed by the 5 federal government for that vehicle that, for example, 01:55:57 didn't include any provisions for brakes, didn't include a 6 7 lot of things that I felt and SAE felt should have been on 8 that standard. So we developed this standard to provide a more robust standard for those type of vehicles to be tested to and evaluated by. 10 01:56:13 11 This is strictly for vehicles that are 12 used in an on-road setting all the time. They are not off-road part of the time, on-road part of the time. They 13 are an on-road vehicle in certain communities, for 14 example, retirement communities, and things like that, or 15

01:56:25

- golf course communities that were -- where the community 16
- 17 permits use there and allows the vehicle. There are
- 18 provisions for turn signals and things like that that
- would be relevant to being an on-road vehicle.
- 01:56:40

01:56:58

- 20 Now, going back to the -- your work experiences, have Ο.
- 21 you -- do you get that -- hired to get involved -- do work
- 22 that is not related to litigation?
- 23 Α. Yes.
- 24 Okay. Can you tell the jury, give the jury some 25 examples of that?

	1	A. Sure. I know from time to time I am asked by
	2	companies to evaluate new products that are developed.
	3	For example, there was a time when John Deere was
	4	taking John Deere is an agricultural company,
01:57:14	5	obviously. They make a vehicle conceptually similar to
	6	the MULE, and it's called the Gator. And they were in the
	7	process of taking that vehicle and moving it into a
	8	more more sporty-type of application, and so I spent
	9	some time with them looking at vehicle handling, the
01:57:35	10	occupant retention systems, the seatbelts, and that type
	11	of thing in terms of them developing that product that was
	12	a little more sporty, for lack of a better term, than the
	13	standard Gator.
	14	I have done work for people like Yamaha
01:57:49	15	with side-by-side vehicles in terms of looking at human
	16	factors, drivers' consideration, developing on-product
	17	labeling. Also done work for governmental agencies around
	18	the world, largely related to special purpose vehicles.
	19	For example, I did some work with the
01:58:03	20	Australian Farm Safety Group to look at the use of ATV s
	21	versus MULE type of vehicles in an agricultural setting in
	22	Australia. Did something similar to that for the Canadian
	23	Forest Industry Council. There has been other situations
	24	like that.
01:58:21	25	Q. Have you had occasions to perform research projects
		KATHY MILLER, RMR, CRR - kathy@miller-reporting.com

- 1 at the request of the CPSC?
- 2 A. Yes, I have.
- 3 **Q.** Okay. On more than one occasion?
- 4 A. Yes.
- 01:58:31 5 Q. All right. Now, let me see here. Oh, I wanted to
  - 6 talk to you about your -- your experiences with the
  - 7 Kawasaki MULE. Before Mr. Hawkins hired you in this case,
  - 8 had you had experiences either with using or studying the
  - 9 Kawasaki MULE?
- 01:58:52 10 **A.** Yes, I have.
  - 11 Q. Can you tell the jury a little bit about that?
  - 12 A. It, I guess, first started when the MULE came out
  - 13 that we -- volume of material, looked at the vehicle and
  - 14 it was involved as a part of the candidate of vehicles we
- 01:59:08 15 looked as a part of that first SAE J2258 standard
  - 16 development. So that was a vehicle that the committee
  - 17 looked at, operated, you know, kicked the tires on, so to
  - 18 speak. I have operated them a number of times personally.
  - 19 I have worked on other projects that involved MULES.
- 01:59:25 20 Q. Okay. Now, I want to talk to you about your
  - 21 background a little bit as far as -- let me preface that.
  - 22 As far as the work that you did for Mr. Hawkins in this
  - 23 case, did you perform any testing?
  - 24 **A.** Yes, I did.
- 01:59:40 25 Q. Okay. Can you -- can you tell us, the jury,

- something about your background as it relates to either doing testing or experiments of the type that you did for
- 3 Mr. Hawkins?
- 4 A. The work that I have done has largely been, from an on type of stuff. I am not
  - 6 an engineer that sits at the drawing board or the computer
  - 7 and does stuff. I am -- I have a test lab and test --
  - 8 test areas in my facility in Florida, and we have off-road
  - 9 driving areas. We have some on-road driving areas. And
- 02:00:12 10 so a good part of the work that I do involves testing.
  - 11 And it may involve full vehicle testing, but it might --
  - 12 also may involve component testing, or human factors
  - 13 testing, or durability testing, or things like that.
  - 14 Q. Now, just so I want to make sure we can kind of get
- 02:00:29 15 our terminology squared away, you just referred to
  - 16 four-wheelers. What's another name for four-wheelers?
  - 17 A. Well, there's -- obviously, four-wheelers is kind of
  - 18 a term that we apply to a lot of vehicles. My pickup
  - 19 truck has four wheels.
- 02:00:41 20 **Q.** Yeah.
  - 21 A. An ATV has four wheels, and it is, I think, referred
  - 22 to by a lot of people as a four-wheeler.
  - 23 Q. So when you just were talking about doing testing on
  - 24 four-wheelers that was like ATV testing?
- 02:00:52 25 A. ATV, side-by-sides, you know, vehicles of that type.

- 1 Q. So, go back to the answer you gave me before. And
- 2 when the Special Purpose Vehicle Committee was first
- 3 working on standards for these UTVs, if you will, did --
- 4 was a part of that work involved in an evaluation and
- 02:01:10 5 study of the MULE and its characteristics?
  - 6 A. It was one of the vehicles that was on the market at
  - 7 that point in time, so it was one of the vehicles that we
  - 8 looked at.
  - $9 \mid \mathbf{Q}$ . Okay. So you looked at it and some competitive
- 02:01:19 10 models, I guess?
  - 11 A. Correct.
  - 12 Q. Okay. Now, we talked about accident reconstruction.
  - 13 Can you tell the jury, as far as accident reconstruction,
  - 14 approximately how many accidents -- whether it involved
- 02:01:34 15 you testifying or not, approximately how many accidents
  - 16 you have been asked to evaluate in the past?
  - 17 A. You know, I have been doing this for over 35 years.
  - 18 I would -- I am sure I have investigated thousands of
  - 19 vehicle accidents of various types.
- 02:01:50 20 Q. Okay. And, now, let me ask you this. Can you tell
  - 21 me what you did when -- after you got retained by -- can
  - 22 you kind of give me an overview after you were retained by
  - 23 Mr. Hawkins of what work you did as far as this case is
  - 24 concerned?
- 02:02:09 25 A. Sure. One of the early things that I did in this

- 1 project was to coordinate having another engineer on my
- 2 team go out and examine the vehicle at the scene that was
- 3 involved in this accident. I reviewed a number of
- 4 documents that I had been provided: Accident report,
- 02:02:28 5 photos, depositions, owners manuals.
  - I have -- I have obtained a similar make
  - 7 and model MULE, and I have done some testing on it that
  - 8 includes driving-type testing. It includes testing of the
  - 9 occupant retention system, looking at how people use the
- 02:02:47 10 vehicle from a functionality standpoint, looking at the
  - 11 strength of certain parts of the vehicle that we noted to
  - 12 be deformed on the subject vehicle that involved the --
  - 13 doing some calculations, and that type of thing.
  - MR. MUELLER: Okay. Can we pull up Exhibit
- 02:03:16 15 126.008.
  - 16 BY MR. MUELLER:
  - 17 **Q.** Can you identify 126.008 for me, Mr. Breen?
  - 18 A. Yes. This is a chart out of SAE J2258, I believe, in
  - 19 the standard such -- designated as Figure 2.
- 02:03:47 20 Q. I missed that last part.
  - 21 **A.** It is the standard section designated as Figure 2.
  - 22 Q. Okay. So this is a document that actually comes out
  - 23 of the SAE standard?
  - 24 A. Correct.
- 02:03:56 25 Q. Can you explain -- because it looks like you have got

1 three regions there. Can you explain to the jury as far 2 as the SAE J2258 standard is concerned, what these three 3 regions mean? Sure. What we were interested in doing fairly early 4 5 on is looking at whether or not a vehicle of this type 02:04:15 6 needed a roll cage of some type and/or if it needed 7 seatbelts, and our thinking was that it depended on a 8 couple of things. It depended on how stable the vehicle 9 was and how fast the vehicle could be driven. And so we looked at a number of issues 10 02:04:32 11 related to that, number of vehicle-use patterns and things 12 like that, and determined that if the vehicle was very 13 stable that there probably was not actually a need for a 14 roll cage and seatbelt, and the seatbelt and roll cage did go hand-in-hand. And if, on the other hand, the vehicle 15 02:04:49 was not very stable, maybe they shouldn't be using it at 16 17 all. Maybe it should be redesigned to be made more 18 stable. 19 And so what this chart is, is kind of 20 looking at this type of evaluation. What we did was say, 02:05:04 21 okay, let's look at the lateral stability. Lateral 22 stability is how a vehicle might overturn sideways, and if 23 when tested on a tilt table, you -- it is not stable to at 24 least 20 degrees, that vehicle shouldn't be -- shouldn't 25 be made. Somebody should do something different with that 02:05:22

vehicle to make it more stable. 1 If, on the other hand, it's -- it's stable 2 3 beyond 20 degrees but doesn't go very fast, let's say it goes 10, 15 mile an hour, then in that area that vehicle 4 5 is very stable, goes pretty slow, and so at that point the 02:05:38 discretion is left to the designer as to whether or not a 6 7 roll cage and seatbelt are necessary. 8 If, on the other hand, the vehicle is 9 above the 20-degree level, so it is pretty stable, but it 10 goes faster, let's say in the, you know, 20 to 25 speed 02:05:57 11 range, then, in that area, it -- though it is pretty 12 stable, it's -- it goes fast enough that the view was the 13 vehicle ought to have a roll cage and seatbelts on it. 14 And so that is the process that we went 15 through to decide -- to give guidance to the people making 02:06:16 16 these vehicles as to where to start as a minimum for 17 stability, and then where to make a decision as to whether 18 to have seatbelts and roll cage or not. 19 All right. And can you explain to the jury -- well, 20 let me ask you this first. As part of the work that you 02:06:33 21 either did for the committee or you did in this case, did 22 you -- did you evaluate the stability of the Kawasaki 4010 23 MULE that is involved in this lawsuit? Yes, I did. 24 Α. 25 Okay. And so, we will talk about that in a minute, 02:06:48 Ο.

- but can you tell the jury as far as, say, Exhibit 126.008, where the MULE is involved in this case, where it falls on
- 3 this chart?
- A. Well, first of all, we measured the speed of the
  vehicle, and the vehicle in low gear does about 14 mile an
  hour and in high gear does about 22 mile an hour. Then
  measured the stability of the vehicle per the standard,
  and the standard requires it to be loaded up pretty heavy
  as though there were four big people in the vehicle.
- We found that it was just above 30

  11 degrees. And so that would put it into the green area

  12 here so that it is in the area, you know, whether it's in
  - enough, it doesn't go so fast that they would require that
    there would be a roll cage and seatbelt associated with

low gear or high gear, that is an area where it is stable

- 16 the vehicle.
  - Q. But the -- from the photograph that the jury is seeing that Kawasaki MULE in this case does have seatbelts and a roll bar; is that right?
- 02:07:55 20 **A.** That's correct.

13

02:07:40

02:08:06

- 21 **Q.** And so was that a decision that was apparently voluntary made by Kawasaki?
- A. Correct. For example, there are some vehicles by
  other manufacturers that fall into this green region that
  do not have a roll cage and a seatbelt. It is a decision

- 1 Kawasaki made to include that, that they would not have
- 2 had to comply with the standard.
- 3 Q. Okay. And as far as the SAE -- the SAE 2258, it does
- 4 have minimum stability requirements, does it?
- 02:08:22 5 **A.** Yes.
  - 6 Q. Okay. Can you tell the jury as far as the Kawasaki
  - 7 MULE involved in this case, how its stability compares
  - 8 with the minimum stability requirements of 2258?
  - 9 A. Its stability characteristics are about 150 percent
- 02:08:40 10 better than the minimum requirements, so it's a very
  - 11 stable vehicle.
  - 12 Q. So, when you say that means -- let's say J2258
  - 13 requires X, and this Kawasaki MULE is how much greater
  - 14 than X?
- 02:08:51 15 A. It's 150 percent of X.
  - 16 Q. All right. Now, as a part of the work that you were
  - 17 doing -- I really did want to cover this.
  - 18 I am going to --
  - 19 MR. MUELLER: These are new exhibit numbers,
- 02:09:09 20 Your Honor, but they're going to be 356 and 357 but for
  - 21 demonstrative purposes only.
  - THE COURT: All right. So you are not offering
  - 23 them into evidence?
  - MR. MUELLER: I am not, Your Honor.
- 02:09:44 25 BY MR. MUELLER:

- 1 Q. Now, Mr. Breen, I am walking up here with Exhibits
- 2 356 and 357. Can you -- well, take this one here, which
- 3 is -- this is 357. And if you could, tell the jury
- 4 what -- can you tell the jury what that is?
- 02:10:12 5 A. This is the A-pillar from the right side of the
  - 6 vehicle, kind of this point of reference. This is my
  - 7 little model of the vehicle here. This is the pillar
  - 8 right here that goes right next where the front passenger
  - 9 would be sitting, right in front of where they would be,
- 02:10:33 10 so this is the A-pillar.
  - 11 Q. If you look at this picture right here -- maybe I can
  - 12 move it over here for -- in front of the jury. We're
  - 13 referring to this one where I am pointing at right here.
  - 14 **A.** Yes.
- 02:10:50 15 Q. All right. And the other exhibit, 356, what is this
  - 16 one?
  - 17 **A.** This is --
  - 18 Q. I'll hold it here.
  - 19 A. This is the opposite side. Essentially what I did
- 02:11:02 20 was get the front roll structure and cut it in half to get
  - 21 it in here easily today. So this is the A-pillar that
  - 22 would be directly in front of the driver.
  - 23 Q. Okay. And so that would -- if we are looking at this
  - 24 picture here, that is this other one that is on the other
- 02:11:16 25 side?

- 1 A. Correct.
- 2 Q. Now, if I hold these two down, is one of them as
- 3 straight as the other?
- 4 A. No.
- 02:11:27 5 Q. Can you explain to the jury -- did you play any role
  - 6 in the fact that one of them is not as straight as the
  - 7 other?
  - 8 A. Yes.
  - 9 Q. All right. Can you tell the jury -- explain to the
- 02:11:37 10 jury what you did.
  - 11 A. Well, one of the things we noted in the examination
  - 12 of the vehicle involved in this crash is that the A-pillar
  - 13 on the passenger side was bent, and we made some
  - 14 measurements and documented that. And I then went back to
- 02:11:54 15 our lab and wanted to measure how much force does it take
  - 16 to bend that piece of steel up -- out of column, so to
  - 17 speak, so it is no longer straight but rather has a buckle
  - 18 in it part way down. And so we put it in a test fixture
  - 19 and applied a load to it, measured that load and resulted
- 02:12:15 20 in the bend you will see in this B-pillar here in the
  - 21 courtroom.
  - 22 Q. Okay. And is that the bend, more or less -- I am
  - 23 sure it is not exact -- roughly the same area as the bend
  - 24 you observed, or you saw, from the Carter MULE?
- 02:12:34 25 **A.** Yes, it is.

- 1 Q. Or Crawford, I should say. Crawford MULE, right?
- 2 A. Yeah. That's correct.
- 3 Q. Okay. Now, I have one more demonstrative here which
- 4 I am going to mark as 358, if it will stick. Is this
- 02:12:59 5 another section of the -- what we're referring to as the
  - 6 ROPS off of a Kawasaki 4010 MULE?
  - 7 A. Right. That's another section off the front section.
  - 8 The way it's built is there's a U shape that extends back
  - 9 in the front and there is another one in the rear, and
- 02:13:20 10 they're connected together. That's another section off of
  - 11 the front, the front tube.
  - 12 MR. HAWKINS: Your Honor, if I might, I would
  - 13 like to -- this is a small one so I won't have to handle
  - 14 it. I would like to pass this around to the jury.
- 02:13:33 15 THE COURT: That is fine.
  - 16 BY MR. MUELLER:
  - 17 Q. Is the -- kind of the width, dimension, and thickness
  - 18 of the ROPS structure in a Kawasaki MULE, at least until
  - 19 you get to the attachment points, is it -- is it pretty
- 02:13:53 20 much the same?
  - 21 **A.** Yes, it is.
  - 22 Q. Okay. Now, what about this question: When you have
  - 23 a section of this ROPS that is -- that is initially
  - 24 supported -- what is this thing that I am tracing my
- 02:14:13 25 finger around?

- 1 A. That is the handhold for the right front passenger,
- 2 so you reach up and grab that little bar and hold onto it
- 3 while you're driving.
- 4 Q. From a material science standpoint, when you attach
- 02:14:23 5 kind of a structure like this to a piece of pipe, does it
  - 6 affect its strength characteristics?
  - 7 A. It affects the structural integrity. Sure.
  - 8 Q. And it affects it up or down?
  - 9 A. It makes it stiffer in that area.
- 02:14:38 10 Q. Okay. So, the fact that this was bent right in an
  - 11 area where it had a support structure means that if I just
  - 12 took a flat piece and bent it, it would take more force to
  - 13 bend it there?
  - 14 A. Correct. The fact that there is that strut there, it
- 02:14:50 15 is going to take more energy to displace it.
  - 16 Q. All right. Now, you were telling the -- the jury
  - 17 your role as far as the -- inducing this bend into the
  - 18 ROPS structure. Can you explain to them what -- what it
  - 19 was you did and then we will go to what conclusions you
- 02:15:09 20 reached.
  - 21 A. Well, as I said before, I noted that there was a bend
  - 22 in the vehicle involved in the accident, and the
  - 23 information was that the bend was not there before the day
  - of the accident. And so it apparently must have occurred
- 02:15:22 25 in the crash itself.

And I looked at where it is and understand 1 2 how that structure works and determined it -- I knew how 3 that load was generated, but what I wanted to look at is how much force did it take to generate that level of bending on that piece of tube and recognizing that there 02:15:36 6 is other parts of the roll cage that are bent as well. We 7 tested the front part of the structure, but there would be 8 other parts that were noted to be bent as well, just a part to try to understand better what type of forces were involved in this crash event. 10 02:15:54 11 Yours -- what you have there might be a little small 12 for the jury to see. Can we -- is it okay to use this 13 one? That's fine. 14 Α. All right. Now, I realize that this is not a 15 02:16:06 Kawasaki MULE but just for demonstrative purposes. 16 17 So how did you -- how did you induce --18 for as far as your experiment was concerned, how did you 19 induce those loads? 20 Basically, I applied a load at the area where the 02:16:24 21 bend occurred to generate a bending load in the tube 22 itself. 23 Okay. And -- and the result of your experiment -- as a result of your experiment, we have the bend that the 25 jury can see here? 02:16:42 KATHY MILLER, RMR, CRR - kathy@miller-reporting.com

KEVIN BREEN - VOIR DIRE BY MR. WEST

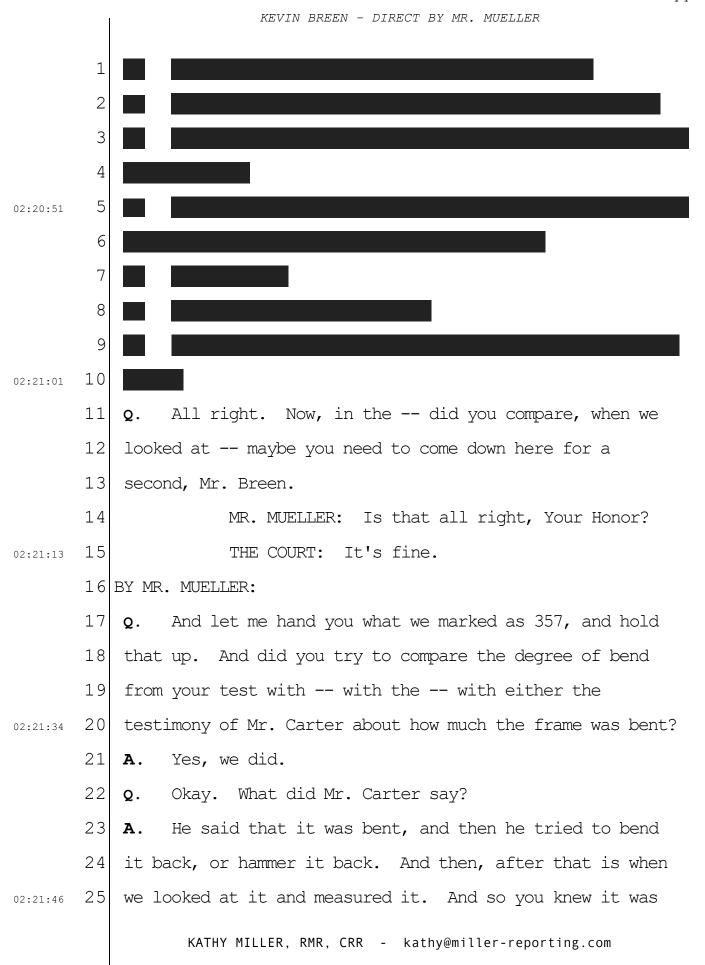
```
1
           Α.
                Correct.
         2
                And can you tell the jury, did you come to any
         3
           conclusions as to the minimum possible forces that were
           necessary to create a bend like that?
         4
                Yes. It -- this bend --
         5
           Α.
02:16:57
                       MR. WEST: I would like to take him on voir
         6
          dire about this before he expresses his opinion.
         8
                       THE COURT: You may.
         9
                       MR. WEST:
                                  Thank you, Your Honor.
                               VOIR DIRE EXAMINATION
       10
02:17:08
       11 BY MR. WEST:
       12
                Mr. Breen, you issued your report in January of 2018,
           correct?
       13
                I believe that's correct.
       14
                And that report was done months before you did this
       15
02:17:15
           Q.
       16
           testing; is that correct?
       17
           Α.
                Yes.
       18
                You've never seen the actual MULE, have you?
           Q.
       19
                 I have not. I had one of the engineers that works
       20
           for me inspect it.
02:17:27
       21
                And when your report was issued, you only had seven
       22
           hours in the entire case when the report that was --
       23
                       MR. MUELLER: Your Honor --
       2.4
                       THE COURT: Excuse me.
       25
                       MR. MUELLER: -- I'll object to this.
02:17:38
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KEVIN BREEN - VOIR DIRE BY MR. WEST

- 1 not proper voir dire.
- THE COURT: This goes beyond voir dire.
- 3 BY MR. WEST:
- $4 \mid \mathbf{Q}$ . When your report was issued months -- when did you do
- 02:17:45 5 this bending test?
  - 6 A. Done on April 11th, 2018.
  - 7 **Q.** Months after your report?
  - 8 A. Yes.
  - 9 MR. MUELLER: Your Honor, this is not proper
- 02:17:56 10 voir dire.
  - 11 THE COURT: This is cross-examination.
  - 12 MR. MUELLER: This is cross-examination.
  - 13 MR. WEST: I am going to the point of the
  - 14 force.
- 02:18:00 15 THE COURT: Go ahead and get there. Thank you.
  - 16 BY MR. WEST:
  - 17 Q. You don't have an impulse time for this collision, do
  - 18 you, sir?
  - 19 **A.** I do not.
- 02:18:09 20 Q. And the force that you have, you're doing a little
  - 21 bit of physics, force equals mass times acceleration?
  - 22 A. Correct.
  - 23 Q. And acceleration is expressed in terms of speed over
  - 24 time squared, right?
- 02:18:24 25 **A.** Correct. Or Gs.

- 1 Q. Okay. And you determined here that the -- that's a
- 2 function of gravity, right?
- 3 A. Correct.
- 4 Q. And you cannot equate force to speed, can you?
- 02:18:37 5 **A.** Cannot.
  - 6 MR. WEST: All right. That is all I have.
  - 7 DIRECT EXAMINATION (Continued)
  - 8 BY MR. MUELLER:
- 9 **Q.** All right. So, as far as the -- the amount of force or energy it took to bend this thing, what conclusion did
  - 11 you come to?
  - 12 MR. WEST: Objection. It is irrelevant, the
  - 13 force and energy, Your Honor. It can't be equated to
  - 14 speed.
- 02:18:54 15 THE COURT: Overruled at this time. I am going
  - 16 to give him a little leeway.
  - 17 A. What we measured was something just a little under
  - 18 2,000 pounds.
  - 19 BY MR. MUELLER:
- 02:19:00 20 Q. Okay. What is the weight of this vehicle?
  - 21 **A.** About 1600 pounds.
  - 22 Q. So the load that you -- that it required to bend
  - 23 it -- now, when you bent it, was it all in the frame on
  - 24 the vehicle?
- 02:19:13 25 A. No. It was just this component part, just the front

KEVIN BREEN - DIRECT BY MR. MUELLER A structure. Okay. But whatever it is at that -- the amount of that load exceeded the entire weight of this vehicle? Correct. That's kind of what was tied into this A. equation we were talking about there on Mr. West's 02:19:27 questions. 02:19:40 02:19:58 02:20:17 02:20:35 KATHY MILLER, RMR, CRR - kathy@miller-reporting.com



- something more than -- more than what it was when we actually looked at it.
- Q. Okay. And so, as far as this bend here, do you have -- do you have a perspective as to how it would have
- 02:22:00 5 compared to the bend immediately following the accident?
  - 6 A. Well, this bend is very close to the bend at the time 7 we looked at it. So, the bend involved in the accident
  - 8 would be something greater than that to some extent.
  - 9 **Q.** And would that mean it would be something that would 10 require a greater amount of force to get a greater bend?
  - 11 A. Yes. That's correct.
  - 12 Q. All right. Thank you.
  - Now, as part of the work in this case, did
  - 14 you evaluate or examine the MULE as far as its occupant
- 02:22:40 15 retention characteristics?
  - 16 **A.** Yes, I did.

02:22:16

- MR. HAWKINS: All right. Can we pull up
- 18 Exhibit 126.014? Oh, we have got it. Sorry.
- 19 BY MR. MUELLER:
- 02:23:09 20 Q. Can you explain -- well, first of all, can you
  - 21 identify this?
  - 22 A. This is a photograph that I took of the exemplar MULE
  - 23 that's one of the vehicles I used for the testing I did in
  - 24 this project.
- 02:23:21 25 Q. And who is the guy sitting in the seat there?

That's -- he -- he has two roles in my life. He is 1 Α. 2 another engineer that works for me but he is also my son. 3 Ah. So your son is sitting in the seat. But now Q. 4 explain to the jury, as a part of your evaluation of the 5 occupant retention characteristics of the MULE, explain 02:23:38 what you're attempting to show with this photograph. 6 7 Well, what I did there was to go through the features Α. 8 in the SAE J2258 to see that this vehicle had those 9 occupant retention features and then also looked to see if there were other features as well. So, for example, 10 02:23:57 there's a seatbelt. That's clearly an occupant retention 11 12 feature. You have a seatbelt on, it does a lot to retain 13 you in your seat. 14 Secondly, there is a designated hand grip 15 at the passenger position. There is also hand grips for 02:24:11 the front riders as well. You can see he is holding on to 16 17 There is a bar that is affixed to the front seat. it. 18 Then there is a hip restraint which is 19 this bar that I am pointing to right here that does two 20 things: One is it provides structural stiffness to the 02:24:26 21 roll cage, but that bar could have been made shorter and 22 done a lot of different ways. Could have actually gone 23 back this way to accomplish the same structure. But by 24 orienting it this way, it accomplished another useful tool 25 and that basically is the hip restraint. In other words, 02:24:43

	1	your hip runs right up against that and it stops you from
	2	going laterally out of the vehicle.
	3	Then lastly not lastly, but there is
	4	also two other features that are not a part of the
02:24:55	5	standard that I found in looking at the this vehicle.
	6	And one is the way the the foot area is designed for
	7	this vehicle, there is an area where your foot is
	8	encapsulated by the B-pillar and the lower support bracket
	9	for the front seat so that your foot basically is provided
02:25:14	10	some some restraint in the footrest area.
	11	And then lastly, the surface that the
	12	that the floor of the vehicle is a diamond plate kind of
	13	floor so that it is intended to provide some resistance to
	14	slip, as opposed to being perfectly flat type of surface.
02:25:33	15	Q. Two follow-up questions on that. Number one, from
	16	the standpoint of the SAE standard, J2258, does this do
	17	these occupant retention characteristics of these vehicles
	18	meet or exceed the requirements of the standard?
	19	A. It exceeds the requirements.
02:25:52	20	Q. Okay. And, secondly, from the standpoint of a design
	21	engineer, do you have a point an opinion as to whether
	22	these occupant occupant retention design features of
	23	the Kawasaki MULE are suitable and proper, reasonably
	24	safe?
02:26:07	25	A. Sure. In my view, this is a very appropriate way to
		KATHY MILLER, RMR, CRR - kathy@miller-reporting.com

configure an occupant retention system. It's at several 1 2 stages. Several body parts are addressed. It is 3 consistent with the way other vehicles within this industry are configured. Obviously, each vehicle has got 4 5 its own little nuances of where things are positioned, but 02:26:25 it has -- it checks all the blocks. It has a few extra 6 7 blocks on its own. And from an ergonomic standpoint it 8 is -- it is very well laid out in terms of, you know, the 9 handhold is literally right in front of you. It's where 10 you can reach at a comfortable level. The -- the hip 02:26:41 11 restraint is there, that you don't have to do anything. 12 It's just there to assist you in the event of lateral 13 motion. The seatbelt is a pretty standard seatbelt that 14 we use every day in our car, so it is something that people would be familiar with, easy to use, not have to 15 02:26:56 figure out continually about it. 16 17 Go ahead. Q. 18 And then the last thing is that the -- that the 19 footrest area there, it's a pretty -- it is located in a 20 very natural position in terms of how you would sit in a 02:27:12 21 vehicle like this. 22 Now, I want to talk about the -- the bar there next 23 to your son, this one right here. So if I sit in this 24 seat, I know it's -- I know this is a bar from the front, 25 and it's not a bent one, but it's coming down in an area 02:27:34

- 1 kind of like this?
- 2 A. Something like that.
- 3 Q. And is it the case that the bar that is -- that we're
- 4 looking at here next to your son is made of the same --
- 02:27:50 5 same dimensions, same thickness, same strength as this
  - 6 one?
  - 7 A. Yes, it is.
  - 8 Q. Okay. Now, you said something about it's configured
  - 9 similar to other vehicles in its class.
- 02:28:11 10 MR. MUELLER: Can we pull up Exhibit 126.16?
  - 11 Oh, before we do that, let's pull up 126.001.
  - 12 BY MR. MUELLER:
  - 13 Q. What are we looking at here, Mr. Breen?
  - 14 A. This is a photograph of the Kawasaki MULE 4010 where
- 02:28:35 15 I have shown where the damage on the subject vehicle is in
  - 16 terms of the bend on the A-pillar part of the bolt of the
  - 17 structure.
  - 18 Q. Okay. So if we look at that, it's in the same
  - 19 vicinity as we see here, right?
- 02:28:51 20 **A.** Yes.
  - 21 MR. MUELLER: Okay. Now -- now, if we can pull
  - 22 up Exhibit 126.016.
  - 23 BY MR. MUELLER:
  - 24 Q. What are we looking at here, Mr. Breen?
- 02:29:12 25 A. Well, as I said a few minutes ago, one of the things

- I looked at is whether or not the occupant retention 1 2 system on this vehicle is consistent with the way other 3 vehicles of this class are configured, and the short answer is, by and large it is. 4 5 But what I did was to survey a number of 02:29:26 6 other J2258 vehicles that are made by people like John 7 Deere, Kubota, Husqvarna, New Holland, Bobcat, people like 8 that, that make competitive vehicles for this application, to see what their occupant retention systems were and to look to see if any of them had, in this case, doors or 10 02:29:52 11 nets. 12 Doors and shoulder bolsters, right? Q. Right. 13 Α. 14 Okay. Now --Ο. 15 MR. WEST: Excuse me, Your Honor. I think his 02:30:04 16 answer was doors and nets. 17 MR. MUELLER: I am moving to strike that. 18 THE COURT: I'll sustain the objection. 19 MR. WEST: Objection, leading, then. It 20 misstates his testimony. 02:30:13 21 THE COURT: All right. I'll sustain as to 22 leading. Rephrase the question. 23 BY MR. MUELLER: 24 All right. As far as doors are concerned, do some of 25 these manufacturers sell accessories that would -- and I 02:30:23
  - KATHY MILLER, RMR, CRR kathy@miller-reporting.com

- 1 am -- if I use the word "enclosed cab," do you know what I
  2 am referring to?
- 3 **A.** Yes.

02:31:04

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- Q. Okay. And by "enclosed cab," can you come down here
  to the jury and show them what -- what you would mean when
  you were using the term "enclosed cab"?
  - A. What -- there are some accessories that are available from various manufacturers, but also the special purpose model that you can purchase that literally turn this open structure into a totally enclosed vehicle like our cars are. So it would be a full-coverage door here, a full-coverage door here, full-coverage back windshield,
  - full-coverage front windshield, so that the whole thing is
    like our cars. It is closed up.

    And that's typically done for people who

are using these kinds of vehicles in — let's say in the wintertime up north, to fight snow and things like that. They want to put a little heater in there to try to keep it warm. Or hot places put air conditioning in there to try to keep it cool. Or if it is a dirty or dusty kind of environment, just from getting it covered with dirt and grime when you're out there at the job site every day.

Q. Okay. So tell me -- explain to me, you were saying you did as a part of your work, you -- you did a survey of the people that -- kind of in this class of vehicles.

- 1 Explain to them how you did that survey.
- 2 A. Well, it involved looking at sort of the big-name
- 3 manufacturers in this -- this class of vehicles and
- 4 looking at either physical samples of their vehicles,
- 02:32:06 5 brochures, searching online at their vehicles to see how
  - 6 each of them were configured. And we had to create sort
  - 7 of a chart to go through and check off on a systematic
  - 8 basis, does it have seatbelts? Does it have a roll cage?
  - 9 How is the seat configured? Does it have a door? And
- 02:32:23 10 those type of things.
  - 11 Q. Okay. And so when you say 95 percent --
  - 12 MR. MUELLER: Can you take this exhibit down?
  - 13 BY MR. MUELLER:
  - 14 Q. When you say 95 percent of them don't have doors,
- 02:32:42 15 what about the other 5 percent?
  - 16 A. Those were essentially vehicles that are sold,
  - 17 brand-new-stock vehicles with full-cab enclosures, like
  - 18 with air conditioning, with the heater, or something like
  - 19 that. So there are -- you know, for example, Kubota has a
- 02:33:00 20 line of these kind of vehicles, and one of them within
  - 21 their line is a full closed -- it is actually a hard-shell
  - 22 cab, and it comes with air conditioning. It comes with a
  - 23 heater. And it's a -- it is a complete sealing around all
  - 24 of the doors and openings so it is just like being in your
- 02:33:16 25 pickup truck.

1 Husqvarna has a similar model they sell 2 with full coverage like that. Essentially, it's an 3 environmental protection type of thing. When you did that survey -- and I have got next to 4 Q. me -- well, if I had my glasses, I could read it. Here 02:33:33 6 they are. It is hard getting old. 7 But it's Demonstrative Exhibit 002. 8 some of photographs in the reports you have seen in this 9 case, have you seen pictures of something like this? 10 Α. Yes. 02:33:58 Okay. I think it's probably fair to refer to this as 11 Q. 12 the Newbold door, something -- you saw it in his report? 13 Α. Correct. Did you see in any of those vehicles that had a 14 Newbold door on it of, you know, essentially this kind of 15 02:34:14 height and configuration? 16 17 Α. No. 18 Okay. So as far as the survey you did on the vehicles in this class, was there even one company that --20 for the models going up to 2013 -- and I want to be clear 02:34:37 21 we are not talking about anything past the model year of 22 this vehicle -- were there any vehicles in this class that 23 had a door like the Newbold door? 24 Not within this class, no. Α. 25 Okay. And so when you earlier were referring to --Ο. 02:34:48

- 1 amongst the other design features that is consistent with
- 2 the practices of the people that are in this class of
- 3 vehicles, was this this survey that you were referring to?
- 4 A. Yes.
- 02:35:08 5 Q. Okay. Now, as a part of your evaluation in this
  - 6 case, did -- did you also engage in some ride testing?
  - 7 A. Yes. I described that earlier as functionality
  - 8 testing.
  - 9 MR. MUELLER: Okay. And can we pull up Exhibit
- 02:35:33 10 164-A?
  - 11 BY MR. MUELLER:
  - 12 Q. All right. First of all, before we get rolling here,
  - 13 can you tell us -- start up and kind of give the jury sort
  - 14 of a preview of what we are going to be looking at?
- 02:35:59 15 A. Sure. This is a MULE 4010. It's a similar vehicle,
  - 16 similar to the one involved in this accident. This is
  - 17 a -- kind of a small farming area in North Fort Myers,
  - 18 Florida. This is a gentleman by the name of Rick Oxton,
  - 19 who worked with us on this project, and he is going to
- 02:36:19 20 demonstrate some of the features of the -- the vehicle.
  - 21 Q. All right. And maybe as we're going along, you can
  - 22 kind of tell me what it is that he's demonstrating.
  - 23 A. Well, the first one there is just showing, as I said
  - 24 before, how easy it is to use just the regular seatbelts,
- 02:36:35 25 similar to like we have in our cars.

He is also demonstrating there one of the 1 2 things is getting in and out of this vehicle as a work 3 vehicle, that is something that you need to be attending to because you may be in and out of it a hundred times in 4 5 a day. Again, there is a rear seat, seatbelt. There is 02:36:48 our foot restraints as well on that. 6 7 And who is the other guy? Q. 8 Α. That's my son again. They get in there, they are 9 showing -- getting in, putting the seatbelt on, as though 10 you have got two guys on a work site. And then showing 02:37:07 11 the handhold for the front person. There is a gearshift, 12 accelerator pedal. 13 Now, here they're going to demonstrate the conversion of the vehicle from a four seater with a 14 smaller bed to a two seater with a bigger bed. 15 02:37:30 And this is a feature -- also a feature of the MULE 16 Q. that Susan Crawford purchased, is it? 17 18 So, now, you basically have a bigger bed but Α. Yes. only one seat or one bench seat. Then here is the dump 20 function on the bed. 02:37:58 21 All right. Now, in addition to demonstrating the 22 features of the model, did you do some other riding evaluations? 23 2.4 Yes, we did. Α. 25 MR. MUELLER: All right. Can we pull 164-B, I 02:38:16

1 am hoping? Yes.

2 BY MR. MUELLER:

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02:38:37

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02:39:12

02:39:32

02:39:58

Q. Before we start this, can you -- again, can you give the jury a sense of what it was you were trying to either demonstrate or show with respect to these shots?

demonstrate or show with respect to these shots?

A. Sure. Again, keeping in mind that this is a utility

vehicle that was purchased a lot of times for farms,

ranches, construction, things like that, where you're

9 looking for a vehicle that can provide a couple of -- you

know, one or two workers maybe, maybe more than that,

11 maybe four workers transportation, to do something useful,

12 work type of things, with the ability to carry some cargo,

13 a cargo bed. But it is also a vehicle that is

14 intentionally designed to be used on an off-road setting

that may be soft surfaces, inclined surfaces, things like

16 that. And it may be a vehicle where you're trying to

drive it into fairly tight areas so that you can negotiate

18 around, you know, brush, or run close to a fence line,

19 things like that. So what this video is, is a short clip

20 just showing you sort of how this vehicle is used, just

21 sort of routine type of applications for utility purposes.

In one of these you can see here is that

23 it's got a fairly tight vehicle so it can negotiate sort

24 of around tight trails and stuff like that that you might

25 find in an unimproved area. This is kind of a scrub brush

	1	area in Florida.
	2	Again, it's got the dump bed, that we have
	3	seen a couple of times now, to be able to carry cargo.
	4	It's a vehicle that you can get in and out of very easily.
02:40:17	5	If you're doing work on a ranch or a farm, you may be
	6	literally in and out of that vehicle 100 times in a day.
	7	This is an example, sort of, of why would you get out of
	8	the vehicle 100 times a day? Well, you have to open and
	9	close fences, and get out to open a fence, get back in
02:40:48	10	after you close the fence to go on on to the next spot
	11	on your farm.
	12	And, again, you list the vehicle is a
	13	fairly low-speed vehicle so that you can use it around
	14	animals without frightening them. And it's pretty
02:41:21	15	maneuverable so that you don't have to worry about, you
	16	know, being able to turn tight circles and things like
	17	that, especially at slow speed, you know. If you are
	18	checking on a fence line or something like that, you can
	19	get up close to the fence and be able to access, you know,
02:41:33	20	again, the fence without having any encumbrances to
	21	reaching over and checking the fence line or, you know,
	22	that type of thing that you might be doing.
	23	Q. Did you see in Mr. Carter's testimony where he
	24	described doing using it for just those kinds of
02:41:49	25	functions?

- 1 **A.** Yes.
- 2 **Q.** Okay.
- 3 A. And now we configured the vehicle back to the
- 4 four-seat type of setup. And we have got a fourth -- a
- 02:42:29 5 third guy in here again showing, you know, the typical get
  - 6 in and out, picking up stuff, tending to -- tending to
  - 7 property.
  - 8 Q. I neglected to --
  - 9 MR. MUELLER: Can you pull up Exhibit 126.10.
- 02:42:44 10 BY MR. MUELLER:
  - 11 Q. Tell me what -- tell me what we're looking at here.
  - 12 A. This is a -- a chart that shows the testing that we
  - 13 talked about a few minutes ago of bending the front
  - 14 A-pillar. This is sort of the plot of the force versus
- 02:43:15 15 deflection, but then also here are some photographs that
  - 16 show how similar the bend that we tested to is to the bend
  - 17 involved in the accident itself.
  - 18 Q. I am going to hand you what I have marked as Exhibit
  - 19 359. And I am going to see if I can get the ELMO to work.
- 02:44:00 20 MR. WEST: Excuse me, Your Honor. I don't
  - 21 think Exhibit 126 is in evidence.
  - 22 MR. MUELLER: What is 126?
  - 23 MR. WEST: What you have been using.
  - MR. MUELLER: Oh, no. I said 359.
- 02:44:10 25 MR. WEST: No. The 126.

MR. MUELLER: This one is 359. I'm sorry. 1 All 2 right. Let me go change 126. 3 MR. WEST: 10 and 11 are not. 4 MR. MUELLER: You want me to set up some 5 foundation for it? All right. Sorry. 02:44:54 6 BY MR. MUELLER: 7 I'm going to hand you this Exhibit 126.10. First of 8 all, can -- I am trying to lay some foundation for this so 9 that we can get it into evidence. Can you describe for the -- in more detail 10 02:45:10 11 how the test was performed that we were discussing 12 earlier? 13 Sure. We -- we took the -- the steel structure that we have seen here the last few minutes, put it in a test fixture, and basically applied a load to deform the 15 02:45:25 A-pillar inward right by where the hand grip is, and then 16 17 we measured the load involved with that test. 18 Okay. And I am going to come over and look at that copy over your shoulder a little bit. As far as the --20 the graph with -- that has the numbers on it there, can 02:45:43 21 you tell the jury how -- what process was used to generate 22 that draft? 23 We conducted some instrumentation to measure the force that was applied and then how much deflection or how 25 much motion the force would have applied over that period 02:46:02

- 1 of time.
- 2 Q. And those are recorded in some kind of a computer
- 3 device?
- 4 A. Yes.
- 02:46:10 5 Q. Okay. And then it -- you can print out a graph of a
  - 6 computer device that is measuring those loads?
  - 7 A. Right.
  - 8 Q. All right.
  - 9 MR. MUELLER: I am offering 126.10.
- 02:46:19 10 MR. WEST: Foundation on voir dire real
  - 11 quickly?
  - 12 THE COURT: Briefly.
  - 13 **VOIR DIRE EXAMINATION**
  - 14 BY MR. WEST:
- 02:46:23 15 Q. Did you apply the force in -- the same principal
  - 16 direction of force as this collision?
  - 17 A. I did not. I applied it in the same direction that
  - 18 the bend was in.
  - 19 Q. Did you apply this force in the same principal
- 02:46:34 20 direction of force as the SAE ROPS testing requires?
  - 21 A. No. Because that would have given us a different
  - 22 bend.
  - 23 Q. So this bend here was neither the force direction as
  - 24 the collision, nor of J1194; is that right?
- 02:46:49 25 A. It is not 1194. It is bent in the same configuration

```
as was in the accident, but force was applied differently
         1
         2
           than it was at the crash.
         3
                       MR. WEST: Objection, relevance.
                       THE COURT: Overruled. What is the exhibit
         4
        5 number again, please?
02:47:02
         6
                      MR. MUELLER: It is 126.010.
         7
                       THE COURT: Thank you.
         8
                          DIRECT EXAMINATION (CONTINUED)
         9 BY MR. MUELLER:
           Q. All right. Now, as to Exhibit 359 --
       10
02:47:08
                      MR. MUELLER: First of all, may I talk to
       11
       12 Mr. West for just one second, Your Honor?
       13
                             (Counsel confer off the record.)
       14 BY MR. MUELLER:
           Q. All right. Can you -- well, first of all, let me
       15
02:47:37
           just get some preliminary questions. Recently did I
       16
       17
           provide you with some electronic files that came from
       18
           Mr. Newbold's data logger?
       19
           Α.
                Yes.
       20
                Okay. From the -- from the runs that he did when he
02:47:56
           Q.
           was out at the Carter property riding around in the 4010
       22
           MULE?
       23
                That's my understanding, yes.
           Α.
       24
                Okay. And did you endeavor to analyze that
           Ο.
02:48:11 25
           information that we recently got from Mr. Newbold?
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
```

- 1 **A.** Yes.
- 2 Q. Okay. And are these files here a portion? I know
- 3 that there is -- he had, looked like, hundreds of pages.
- 4 Is this a portion of the data that came on those thumb
- 02:48:25 5 drives that I provided to you?
  - 6 A. This is all of the data from the thumb drives.
  - 7 Q. Okay. And so, if I can put this up here, now, what
  - 8 are we -- and, oh, hold on. Tell me what we're looking
  - 9 at. And I am going to flip to the next page, but tell me
- 02:48:51 10 what we're looking at here with all these little, for lack
  - 11 of a better word, squiggly lines?
  - 12 A. So what these are is the data that was collected from
  - 13 the driving that was done, and across the bottom of the
  - 14 page is time. And so it's from zero to 1500 seconds. And
- 02:49:11 15 then the top -- there are the three graphs of data. The
  - 16 top one is speed. This one is in mile per hour. So you
  - 17 can see here, here's 15 mile an hour.
  - 18 **Q**. Uh-huh.
  - 19 A. That line right there. You can see most of the runs
- 02:49:26 20 were done at just below 15 mile an hour.
  - 21 **Q**. Uh-huh.
  - 22 A. And then the middle chart is the lateral acceleration
  - 23 in Gs. And then the bottom chart is the longitudinal
  - 24 acceleration, again in Gs.
- 02:49:39 25 Q. All right. And we are going to come back to that.

- 1 Now, let's look at the next page here. What is the next
- 2 page of Exhibit 359?
- 3 A. That would be the actual path that he drove for that
- 4 particular ride. So this is like the GPS coordinates, or
- 02:49:58 5 if you were to just plot out on a map where he drove
  - 6 around during the course of that 1500 seconds or so.
  - 7 Q. Okay. So, from -- if I am looking down at the Carter
  - 8 property from a satellite view, and he had a little piece
  - 9 of chalk driving behind him, we would see these trace
- 02:50:15 10 markings?
  - 11 A. Correct.
  - 12 Q. And so if I look at, for example, an area like right
  - 13 here, or right here, does it appear from the GPS data that
  - 14 he was making some pretty tight turns?
- 02:50:28 15 A. Right. From looking at the data, it appears those
  - 16 are full lock turns.
  - 17 Q. Okay. And so did you -- in looking at Mr. Newbold's
  - 18 data from his actual riding the subject MULE on the Carter
  - 19 property, and when he was making these tight turns, can
- 02:50:46 20 you tell me approximately what was the top -- at the --
  - 21 this is for the 14-mile-an-hour runs, you know, or so.
  - 22 What was the top lateral Gs that he measured?
  - 23 A. It looks like in the testing he did where he is
  - 24 driving 14 mile an hour at just under 15, that the top was
- 02:51:10 25 .5, .6 Gs.

- 1 Q. Okay. Now, you did -- and with that -- if we move on
- 2 to -- I guess you have got several of these, right?
- 3 **A.** Yes.
- 4 Q. Okay. Then we can look at -- see here that, again,
- 02:51:18 5 he is making a lot of tight turns and so forth, right?
  - 6 **A.** Yes.
  - 7 Q. And then if we go on back, you can see in this one he
  - 8 was making a lot of really tight turns here, right?
  - 9 A. Right.
- 02:51:31 10 Q. Okay. And throughout that data, would it be -- was
  - 11 it looking at all these tight turn runs but only for the
  - 12 14 mile an hour, you know, speeds, was the -- was the top
  - 13 tier, as you said .5 or .6?
  - 14 A. Yes. I didn't find any above that for the
- 02:51:52 15 14-mile-an-hour runs.
  - 16 MR. MUELLER: Okay. I'd offer into evidence
  - 17 Exhibit 359, Your Honor.
  - 18 MR. WEST: No objection.
  - 19 THE COURT: It is admitted. Thank you.
- 02:51:59 20 BY MR. MUELLER:
  - 21 Q. Now, did you -- did you, as a part of your analysis,
  - 22 perform any tilt table testing to evaluate the lateral
  - 23 stability of the Kawasaki 4010 MULE?
  - 24 A. Yes, I did.
- 02:52:24 25 Q. Okay. And that -- was that tilt table testing done

- 1 consistent with the SAE standards?
- 2 A. It was done both consistent with the SAE standards
- 3 but also using the same methodology but with the weights
- 4 in the vehicle like were in this accident, as opposed to
- 02:52:39 5 the test weights that were required in the SAE 2258.
  - 6 Q. Okay. Let's talk about that a little bit. So you
  - 7 not only evaluated as SAE required, but you also evaluated
  - 8 the lateral stability weighting the various occupant seats
  - 9 according to the weights of the individuals that were
- 02:52:55 10 riding that day?
  - 11 A. What we understood their weights to be, yes.
  - 12 Q. And in terms of the lateral Gs that from your tilt
  - 13 table test for the weights that were actually weighted
  - 14 that day, what number did you come up with?
- 02:53:10 15 A. It was like 34-point-something degrees. Just a hair
  - 16 under 35 degrees.
  - 17 Q. Okay. So that means that if the vehicle got tilted
  - 18 all the way up to such a -- you know, something greater
  - 19 than a third of 90, that it was still stable at that?
- 02:53:31 20 A. Correct.
  - 21 Q. And the way -- I -- we must have a picture of it some
  - 22 place, but -- so what you do, and maybe I can just see if
  - 23 I can demonstrate this, if I can grab the -- if I can grab
  - 24 the toy, is if you put it on like this and you tilt the
- 02:54:07 25 table up, and up, and up, it stays on all four wheels at

- 1 what degrees?
- 2 A. It was set up in the accident configuration at 34.6
- 3 degrees. You go just a little bit more and the top -- and
- 4 the top of the wheels just start to leave the ground.
- 02:54:24 5 Q. And that is how you ended up with a conclusion that
  - 6 weighted as it was on the date of the accident, that the
  - 7 lateral -- this vehicle was stable, four wheels on the
  - 8 ground, all the way up to .7 Gs?
  - 9 A. Correct.
- 02:54:40 10 Q. Okay. Now, so what is the -- what is the
  - 11 significance of the fact that when Mr. Newbold rode the
  - 12 subject vehicle on the Carter property making all those
  - 13 tight turns at 14 miles an hour, what is the significance
  - 14 of the fact that he only got numbers that were in the .5
- 02:55:00 15 or .6 range?
  - 16 A. Well, .5 or .6, you said only in the .5 or .6 range,
  - 17 is pretty high. That is not something you do in normal
  - 18 driving around at all. Typical driving for -- you know,
  - 19 of an off-road vehicle, you know, is in the .3, .4 at the
- 02:55:18 20 most.
  - 21 **Q.** So he was riding pretty aggressively?
  - 22 A. He was pushing the limit. And, you know, for utility
  - 23 work, you know, like on a ranch or a farm, you know, it's
  - 24 rarely above two-tenths of a G. And just to kind of
- 02:55:32 25 correlate that a little bit, when you drive your car, the

```
1
            same thing goes on. You get lateral Gs. And like 99
         2
           percent of all driving is less than three-tenths of a G in
         3
            terms of lateral acceleration.
                       MR. WEST: Objection, Your Honor. Foundation.
         4
         5
                       THE COURT:
                                  Response.
02:55:48
                       MR. MUELLER: It seems like --
         6
         7
                       THE COURT: Do you want to lay a more detailed
         8 predicate?
         9
                       MR. MUELLER: All right.
       10 BY MR. MUELLER:
02:55:55
       11
                Can -- how many years -- how many years have you been
       12
           doing research, testing, and evaluating four-wheeled
           vehicles?
       13
       14
                 I quess almost 40.
                 And in all those 5,000 accident cases that you
       15
02:56:08
           evaluated, have you had an opportunity to measure the
       16
       17
           lateral Gs in a whole variety of vehicles?
       18
           Α.
                 Yes.
       19
           Q.
                 And have some of those evaluations been done just in
       20
           the course of doing, as you described it, normal riding?
02:56:28
       21
           Α.
                 Yes.
                 And is it that work background and experience the
       22
       23
           basis for the number that you just told the jury?
       2.4
                       MR. WEST: Objection, leading, Your Honor.
       25
                       THE COURT: Rephrase it so as not to lead.
02:56:39
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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	1	MR. MUELLER: I'm sorry. I couldn't hear.
	2	THE COURT: Rephrase so as not to lead.
	3	MR. MUELLER: Sorry.
	4	THE COURT: Thank you.
02:56:47	5	BY MR. MUELLER:
	6	$oldsymbol{Q}$ . Can you explain to the jury the basis for the number
	7	that you just gave them?
	8	A. It would be both personal testing I have done, and
	9	there's a lot of technical literature that has been
02:56:59	10	developed that I have reviewed over the years in this
	11	area.
	12	MR. MUELLER: Is that sufficient, Your Honor?
	13	THE COURT: Sorry?
	14	MR. MUELLER: Is that sufficient, Your Honor?
02:57:05	15	Do you have any more objection?
	16	THE COURT: Yes.
	17	MR. WEST: Go ahead and ask him the question.
	18	THE COURT: Thank you.
	19	MR. MUELLER: Fair enough.
02:57:14	20	BY MR. MUELLER:
	21	Q. But so, going back to the relationship between
	22	Mr. Newbold's very aggressive riding out on that Carter
	23	property and the .7 number, what's the significance of
	24	that here?
02:57:32	25	A. Well, I think a couple of things. In order to get
		KATHY MILLER, RMR, CRR - kathy@miller-reporting.com

- the vehicle to just start to have the wheels come off the ground, you know, just a little bit, as you're making
- 3 whatever maneuver, it takes .7 Gs.
- 4 Mr. Newbold was out driving around there
- 02:57:47 5 pretty aggressively. .6 is probably that -- is the
  - 6 highest I saw of any of his data. So he wasn't -- he
  - 7 wasn't at that level where he would -- just even a little
  - 8 bit of wheel lift in the driving that he did. And even
  - 9 that, like I said before, that's pretty aggressive
- 02:58:03 10 driving.
  - 11 Q. And I guess you saw his testimony that -- that
  - 12 regardless of how aggressively he rode it, he never rolled
  - 13 it over when he was out there, did he?
  - 14 A. That's what he said, yes.
- 02:58:12 15 Q. All right. So, now is -- from your standpoint
  - 16 looking at -- let me -- let me go back. In the riding
  - that you did, did you also perform some riding where you
  - 18 weighted the vehicles consistent with the weights of the
  - 19 people that were out there?
- 02:58:36 20 **A.** Yes.
  - 21 Q. And did you, in fact, as a part of that riding to try
  - 22 and evaluate the influence of this what sounded like
  - 23 referred to as a depression, what I have been referring to
  - 24 as kind of a pothole out there -- did you try and do any
- 02:58:52 25 evaluations to look at that?

```
1
           Α.
                Yes, we did.
                Okay. And tell the jury what you did.
         2
         3
                What we did was went to a relatively flat, grassy
           Α.
            field, laid out a course similar to that with the fence
         4
           line at the accident scene, and then we dug a hole that
         5
02:59:05
           was similar in size to the hole that was measured out at
         6
         7
           the accident scene, a pothole, or depression, whatever you
           want to call it, and then did a number of driving
           maneuvers making turns in the vicinity of the hole,
            sometimes hitting the hole, sometimes not hitting the
       10
02:59:23
           hole, at speeds -- at max speed, 14 mile an hour, in low
       11
       12
           gear with different levels of steering input.
                And did you shoot or record some video of this -- of
       13
           this testing?
       14
       15
           Α.
                Yes.
02:59:37
       16
                All right. Can we pull up --
           Q.
       17
                            Before we do that, let's -- can we look --
       18
                          (Confers with counsel off the record.)
       19
                       MR. MUELLER: All right. Can you pull up
       20 126.12?
02:59:59
       21
                                  Those are in.
                       MR. WEST:
       22
                       MR. MUELLER: Huh?
       23
                                  Those are already in. They're in
                       MR. WEST:
       24 evidence.
       25
                       MR. MUELLER: Oh, all right. Thank you.
03:00:06
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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- 1 BY MR. MUELLER:
- 2 Q. Now, what are we looking at here, Mr. Breen?
- 3 A. This is our test area. Again, it's a fairly flat,
- 4 grassy area, and I have placed some cones -- kind of hard
- 03:00:22 5 to see the lighting in here -- but there is a series of
  - 6 cones right along the left-hand side of the photograph
  - 7 that represent the fence line. And then it's kind of even
  - 8 harder to see here, but we dug a hole out there that was
  - 9 16 feet from the fence line.
- 03:00:40 10 Q. I have got another picture. I am going to show that.
  - 11 But I wanted to just say, first of all, what are these --
  - 12 what are these things here?
  - 13 A. Those are water dummies. So what they are, are big
  - 14 plastic, essentially, huge water jugs, and we can fill
- 03:00:55 15 them up with water at different levels and weigh them so
  - 16 that we can put, you know, 100 pounds in the seat or 150
  - pounds in a seat or whatever weight we want to.
  - 18 MR. MUELLER: All right. If we can put up
  - 19 126.013.
- 03:01:10 20 BY MR. MUELLER:
  - 21 Q. All right. So what are we -- you were talking about
  - 22 some hole. First of all, is that what I am pointing at
  - 23 right there?
  - 24 A. Yes. It's a hole we dug.
- $_{03:01:25}$  25 **Q.** All right. Now, when the inspection was done at the

- 1 scene, did somebody take measurements of the hole that was 2 out on the Carter property? 3 Α. Yes. Okay. And how does that -- the shape -- I mean, the 4 size, the width, and the depth of this hole compare with 5 6 the measurements that were made on the Carter property? 7 It's similar. Α. 8 Okay. And so, then, now you can explain to the jury, Q. what did you do with regard to this hole? I take it these tests were conducted in Florida some place? 10 11 Α. Yes. 12 Okay. What did you do in regard to this hole? Well, we -- as I said before, we did some driving 13 Α. 14 tests where you approach the fence line that we put through there with the cones and made a left hand turn at 15 various amounts of steering input, sometimes interacting 16 17 with the hole and sometimes not. 18 Okay. And can we --Q. 19 MR. MUELLER: Well, do you know what video that 20 is? 21 TECHNICIAN: 065. MR. MUELLER: Say again. TECHNICIAN: 165.
- 22
- 23
- 24 MR. MUELLER: Can you show video 165, please?
- 25 BY MR. MUELLER: 03:02:33

03:01:38

03:01:55

03:02:06

03:02:26

- 1 Q. As we're going through this, before you run it, how
- 2 many test runs are we going to look -- did you perform?
- 3 A. That involve this step maneuver, 16.
- 4 Q. Okay. And the 16 were recorded on this video that we
- 03:02:50 5 are about to look at?
  - 6 **A.** Yes.
  - 7 **Q.** Okay. And so, as we go through this, perhaps you can
  - 8 describe for the jury what we're -- what we're see seeing
  - 9 there.
- 03:02:59 10 A. Sure. This is sort of getting started. It's the
  - 11 first run, obviously. And here is -- I am driving the
  - 12 vehicle. We have got the two water dummies. We have also
  - 13 got a camera that's looking at what is going on with the
  - 14 steering input, and there is also instrumentation
- 03:03:16 15 recording speed and steering input as well as the track of
  - 16 the vehicle.
  - (Video of Run 1 played.)
  - 18 BY MR. MUELLER:
  - 19 Q. There, I guess, are the cones you were talking about,
- 03:04:33 20 right?
  - 21 A. Right. And if you saw that molded -- the hole with
  - 22 the right --
  - 23 (Video of Run 2 played.)
  - 24 BY MR. MUELLER:
- 03:05:33 25 **Q.** The hole is back there some place?

- 1 **A.** Yes.
- 2 Q. And these are -- these runs all being done basically
- 3 at, you know, 14 miles an hour, something like that?
- 4 A. Yes. 14, 15 mile an hour.
- 03:05:48 5 (Video of Run 3 played.)
  - 6 BY MR. MUELLER:
  - 7  $\mathbf{Q}$ . Have they managed to hit the hole every time?
  - 8 A. No. I -- part of the test was to drive -- to just
  - 9 steer without contacting the hole to see what happened
- 03:06:05 10 there. Sometimes was trying to hit the hole, and
  - 11 sometimes we tried to hit the hole and missed it.
  - 12 (Video of Run 4 played.)
  - 13 BY MR. MUELLER:
  - 14 Q. The hole is right there, isn't it?
- 03:07:18 15 **A.** Yes.
  - (Video of Run 5 played.)
  - 17 BY MR. MUELLER:
  - 18 Q. Now, the two water barrels, or whatever you call
  - 19 them, they're loaded up with water to simulate the weight
- 03:07:39 20 of the other two passengers; is that --
  - 21 A. Correct.
  - 22 Q. All right.
  - 23 MR. WEST: Your Honor, this is cumulative. He
  - 24 keeps straddling the hole. It's cumulative.
- 03:08:05 25 THE COURT: I am waiting for his response.
  - KATHY MILLER, RMR, CRR kathy@miller-reporting.com

	1	Response?
	2	MR. MUELLER: If we have had enough, I am
	3	willing we can stop.
	4	THE COURT: All right. Let's get through this
03:08:12	5	last one, and then we are done.
	6	BY MR. MUELLER:
	7	Q. The rest of the runs that you would they be
	8	when they hit the hole, they hit the hole. When they
	9	didn't, they didn't. But the turns and the runs, would it
03:08:23	10	be reflecting essentially substantially the same thing
	11	that we just saw?
	12	A. Conceptually similar other than for some of the runs,
	13	I then sat in the right rear position to kind of
	14	experience what it would be like to be in the right rear
03:08:36	15	position and somebody else drove.
	16	Q. Now, in terms of the of rate of turn here, I know
	17	there had been some discussion of some of the people about
	18	a full locked turn. Are these in these runs, were
	19	these guys doing full locked turns or just kind of really
03:08:55	20	aggressive ones? Or how would you describe that?
	21	A. Well, it ranged. That's one of the things that we
	22	were trying to experiment with a little bit. Some of the
	23	runs were right at or a little bit above a full lock
	24	steer, and some of them were less than a full lock steer.
03:09:09	25	$oldsymbol{Q}$ . Okay. But in even the ones that were right at or
		KATHY MILLER, RMR, CRR - kathy@miller-reporting.com

- 1 very near a full lock steer, did you --
- 2 A. May I should -- full rotation, not a full lock. Let
- 3 me correct what I said there.
- 4 **Q.** Full?
- 03:09:20 5 A. We did one full rotation but not all the way to the
  - 6 lock.
  - 7 Q. Okay. So if I -- if I had a steering wheel here, I
  - 8 went all the way around like that once, that's what you're
  - 9 saying that they were doing there?
- 03:09:30 10 A. That's what we did on some of the runs, yes.
  - 11 Q. Okay. And now explain to the jury, to do a -- so we
  - 12 have got a terminology right, for a full lock turn, what
  - are we talking about in terms of this?
  - 14 A. One-and-a-half times. All the way around once and
- 03:09:49 15 then almost halfway around again.
  - 16 Q. Okay. So to get down to, I think, what Mr. Newbold
  - described as his 15-foot radius turn, that would have
  - 18 to -- would that have to assume that -- that the young
  - 19 Carter lady did a one -- let's see, if I start off here, I
- 03:10:06 20 am going to go one and then all the way over to here when
  - 21 she made that turn?
  - 22 **A.** No.
  - 23 **Q.** What did I do wrong?
  - 24 A. Keep going. There you go.
- 03:10:14 25 Q. Ah. Okay. So -- and so to -- but to get to a 15

- 1 radius turn, it is that one-and-a-half turns, you would
- 2 have to assume that she is making that in order to achieve
- 3 a 15-foot radius turn?
- 4 A. That is correct.
- 03:10:28 5 Q. Okay. In any of these runs that you did here -- by
  - 6 the way, in -- in Mr. Newbold's data logger, did he record
  - 7 the degrees of turn of his steering wheel?
  - 8 A. No.
  - 9 Q. So the only way you can tell how aggressive it is,
- 03:10:47 10 by looking at those small little circles, he is doing a
  - 11 complete 180?
  - 12 A. Correct. Or a complete 360.
  - 13 Q. Okay. Now -- but in any of the 16 runs that you did
  - 14 here, whether you were hitting the hole or missing the
- 03:11:01 15 hole, with this complete 180 degree -- or 360 degree,
  - 16 there -- I am going to get -- math apparently is not my
  - 17 strong suit. With the complete 360-degree turn, you
  - 18 were -- you never -- well, first of all, you never rolled
  - 19 any of these over, did you?
- 03:11:21 20 **A.** Oh, no. Of course not.
  - 21 Q. All right. And so we would also assume that you
  - 22 never achieved lateral accelerations that would exceed
  - 23 7 G -- .7 Gs?
- 24 **A.** Correct. We did not. We actually did not have a lot of accelerations where the vehicle started to slide

- 1 either, so these maneuvers were less than what is
- 2 necessary to cause the vehicle to slide.
- 3 Q. Now, let me ask you this.
- 4 MR. MUELLER: Can we pull up 126.005?
- 03:11:48 5 BY MR. MUELLER:
  - 6 Q. This is what I was actually looking for before but
  - 7 couldn't find. Can you identify this for me, sir?
  - 8 A. Yes. This is the tilt table test we did with the
  - 9 MULE configured with the weights we understood to be
- 03:12:16 10 weights of the people that were in the unit at the time of
  - 11 the accident.
  - 12 Q. Okay. And so this was a test that you performed; is
  - 13 that right?
  - 14 **A.** Yes.
- 03:12:24 15 Q. And if I am looking down here at the lower left-hand
  - 16 corner, that vehicle still is sitting on all four wheels.
  - 17 If you can -- that point right over there. Yeah.
  - 18 34.8 degrees, right?
  - 19 A. Correct.
- 03:12:41 20 Q. Now, in the SAE test -- explain this to me for a
  - 21 minute. In the SAE test -- and I am going to steal my toy
  - 22 here for a minute. In the SAE test when you do the tilt
  - 23 table test and you put it up on that table and you lift it
  - 24 up like this, when are you supposed to stop the test?
- 03:13:04 25 A. When the uphill tires just come off the ground.

- 1 Q. So even if it just comes off a quarter of an inch,
- 2 the test is over?
- 3 A. It has got to be visibly off the ground, but yes.
- Q. Okay. But does that mean that at .7 Gs, if it -- if

  103:13:17 5 it just comes off the table a quarter of an inch, does
  - 6 that mean that the vehicle then is going to tip over?
  - 7 **A.** No.
  - 8 Q. So in order for the vehicle to tip over, while in the
  - 9 SAE test it's stable, all four wheels on the ground at
- 03:13:33 10 34.8 degrees, it is also, if you go a little bit further,
  - 11 the wheel is going to get off the ground, it is not
  - 12 rolling over at that level?
  - 13 A. That's correct.
  - 14 Q. Okay. So in order to get the vehicle to roll over,
- 03:13:46 15 it would have to be some number greater than 35 degrees,
  - 16 right?
  - 17 MR. WEST: I'm sorry. Your Honor, objection.
  - 18 He is leading.
  - 19 MR. MUELLER: I'll withdraw it.
- 03:13:58 20 THE COURT: Rephrase it.
  - 21 BY MR. MUELLER:
  - 22 Q. Can you tell the jury whether or not the -- the
  - 23 actual lateral Gs the vehicle would have to experience in
  - 24 order to roll over, as opposed to just having the wheel
- 03:14:13 25 come up a little bit, what lateral Gs would it have to

- 1 experience?
- 2 A. It would have to be something greater than what --
- 3 what the limit test would be showing here. So something
- 4 greater than 34.8 degrees.
- 03:14:23 5 Q. All right. But do we know -- well, how about this,
  - 6 did you do that test where you kept on tilting it up and
  - 7 tilting it up until finally in this tilt table test where
  - 8 it did roll over?
  - 9 A. It did not.
- 03:14:34 10 **Q.** Okay.
  - 11 A. I did that mathematically, but I did not do it -- I
  - 12 didn't want to damage the vehicle, but I did it
  - 13 mathematically.
  - 14 Q. Okay. All right. But so -- let me see if I can --
- 03:14:55 15 now, in your -- well, first of all, from the analysis and
  - 16 studies that you have done of this vehicle, have you come
  - 17 -- considering its stability characteristics and its
  - 18 occupant-retention features, have you come to an opinion
  - 19 as to whether or not the design of this vehicle is
- 03:15:15 20 reasonably safe?
  - 21 **A.** Yes, I have.
  - 22 **Q.** Okay. And what is that opinion?
  - 23 **A.** I --
  - MR. WEST: Objection, foundation. He hasn't
- 03:15:21 25 been given the proper foundation.

```
1
                       THE COURT: Do you want to rephrase?
         2 BY MR. MUELLER:
         3
                Well, I am -- can you tell me what -- before you give
           me the opinion, can you tell me the bases for your
           opinion?
        5
03:15:34
         6
                Well, I guess the basis we have talked about here,
         7
           but in summary --
         8
                       MR. WEST: Excuse me, Your Honor, I am not
         9 asking the basis. It is the ultimate question foundation.
       10 I'm sorry if I wasn't clear.
03:15:43
                       MR. MUELLER: I don't know what foundation he
       11
       12 is talking about then.
       13
                       THE COURT: Rephrase the question.
       14
                       MR. MUELLER: One second, Your Honor.
       15
                     (Counsel confer off the record.)
03:16:01
       16 BY MR. MUELLER:
       17
                Based upon a reasonable degree of engineering
       18
           certainty, do you have an opinion as to whether or not
           this vehicle is reasonably safe?
       20
                       MR. WEST: Objection, foundation still. It is
03:16:20
       21 not the proper --
       22
                       THE COURT: Overruled. You may answer.
       23
                Yes, I do.
           Α.
       24 BY MR. MUELLER:
03:16:27 25 Q. Okay. And can you tell me what that opinion is?
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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- 1 A. I believe that this vehicle as designed is reasonably
  2 safe for its intended purpose from a stability, handling,
  3 and occupant protection standpoint.
  - Q. All right. And can you describe for me the basis other than what we have been talking about here and the testing analyses done, can you describe for me well, maybe I shouldn't ask it that way.

Let's talk about the stability of the

yehicle. Would you -- how would you from an engineering standpoint characterize the stability of the Kawasaki

11 MULE?

4

5

6

7

8

03:16:44

03:17:03

03:17:36

03:18:00

22

- 12 **A.** This vehicle has a very good stability, especially for its intended purpose as a utility, relatively
- 14 low-speed vehicle.
- O3:17:16 15 Q. Okay. And from the standpoint of the SAE standards that apply to this vehicle, how would you characterize the occupant-retention characteristics of the vehicle?
  - 18 **A.** The occupant-retention characteristics exceed the 19 requirements of the SAE standard and are reasonable design 20 configuration for its intended purpose.
  - 21 Q. Okay. Now, as a part of this design analysis that
  - 23 Mr. Newbold has been asserting that this vehicle should

you did, I take it you're aware of the fact that

24 have doors like this, four of them, I guess, and shoulder 25 bolsters?

- 1 A. Yes, I am aware of that.
- 2 Q. Okay. And just restricting it to doors and shoulder
- 3 bolsters, did you do any work in this case to evaluate the
- 4 Newbold suggestions?
- 03:18:17 5 **A.** Yes, I did.
  - 6 Q. Okay. Can you describe for the jury what work you
  - 7 did to look at the potential, the pros and cons, to the
  - 8 Newbold -- I don't know if I -- let me -- before I go
  - 9 there, because I don't know if I asked you this question.
- Do any of these SAE J2258 vehicles have
  - 11 these kind of half doors and shoulder bolsters that
  - 12 Mr. Newbold is talking about?
  - 13 A. No. They do not.
  - 14 Q. Okay. All right. Tell me what the -- what you did
- 03:19:15 15 to evaluate the pros and cons of the Newbold door.
  - 16 A. Well --
  - 17 Q. Excuse me, the Newbold door and shoulder bolster. I
  - 18 want to get those both in there.
  - 19 A. What I did was two things. One is I took our
- 03:19:31 20 exemplar vehicle and I put panels on there similar to the
  - 21 one that's here in the courtroom and did the functional
  - 22 evaluation of those devices on a vehicle using an exemplar
  - 23 person getting in and out of the vehicle, looking at how
  - 24 they're positioned, how it affected their ability to -- to
- 03:19:52 25 basically use the vehicle for its intended purpose. It is

going to involve getting in and out of it. Did it create 1 some hazards? Did it have some benefits? 2 3 And then the second thing I wanted to look at is what would happen if a rear-seat occupant were to be 4 involved in a lateral rollover unbelted with the Newbold 5 03:20:09 half door and shoulder bolster in place, to see what would 6 7 happen with an occupant in that situation. 8 Okay. Let me -- maybe I can -- skipped ahead a Q. little bit. As a part of your -- because we haven't 10 gotten to the accident reconstruction part yet so -- but 03:20:27 if I could just skip ahead a little bit, then we can come 11 12 back to that. 13 As a part of your work on the accident 14 reconstruction, did you come to a conclusion as far as the vehicle dynamics in this accident? 15 03:20:42 16 Yes, I did. Α. 17 Okay. And I know we are going to come back to it 18 about how you got there, but demonstrating either one of 19 those devices, can you -- can you tell the jury what you 20 think as far as the vehicle dynamics in this accident, 03:20:56 21 what they were? 22 Well, sort of in summary, the vehicle was in a -- a 23 turn, a turn to the left, starts to slide, and starts to, 24 as a result of being in what is called a yaw, it starts to 25 then do a pitch roll coming into contact on the corner of 03:21:12

- 1 the A-pillar causing the damage that we see, and then
- 2 coming down to rest on the ground.
- 3 Q. In the information you received in the depositions,
- 4 and I know we have talked about the A-pillar already, I
- 03:21:32 5 guess you learned that the -- and from the inspection
  - 6 materials, you learned that the A-pillar was bent?
  - 7 A. Right.
  - 8 Q. Okay. And in the demonstration that you just did for
  - 9 the jury, just so we're clear, that A-pillar that we are
- 03:21:47 10 talking about, I realize they are only little one-row
  - 11 seats here, but the A-pillar we are talking about is this
  - 12 one here?
  - 13 **A.** Yes.
  - 14 Q. Now, did you also receive information as to any
- 03:22:00 15 consequences as far as the front hood is concerned?
  - 16 **A.** Yes.
  - 17 Q. Okay. And just so I can -- when we are talking about
  - 18 the front hood, we are talking about this piece just like
  - 19 the front hood of your car, right?
- 03:22:12 20 **A.** Correct.
  - 21 Q. Okay. And what information did you receive about the
  - 22 front hood?
  - 23 A. That it opened up.
  - Q. Okay. Now, do you know anything about the latching
- 03:22:22 25 mechanism on the front hood?

- 1 **A.** Yes.
- 2  $\mathbf{Q}$ . Tell the jury about the latching mechanism on the
- 3 front hood?
- 4 A. Essentially, it is like we have in our cars in that
- 03:22:32 5 there is a little release knob in the occupant area, but
  - 6 what it has are two hooks that are under the hood that are
  - 7 called slam latches that are spring loaded that are steel
  - 8 hooks that basically engage a bar that when you push it
  - 9 down and slam on it, it latches these hooks in place.
- 03:22:47 10 Q. Well, so if I were to go out to your average Chevy or
  - 11 Pontiac, how many of these spring locks that you are
  - 12 talking about would that car have?
  - 13 A. It has one as a primary and one as a secondary.
  - 14 Q. Okay. And this vehicle has two?
- 03:23:04 15 **A.** Has two primary.
  - 16 Q. Do you have a view as to -- in terms of popping that
  - 17 hood open, do you have a view or perspective as to the
  - degree of force it would take to pop the hood open?
  - 19 MR. WEST: Excuse me, Judge. There has been no
- 03:23:21 20 disclosure of any such opinion.
  - 21 THE COURT: The question is, does he have a
  - 22 view? Then he can explain the basis for it.
  - 23 MR. WEST: It is irrelevant. It has not been
  - 24 disclosed, any such view.
- 03:23:30 25 THE COURT: All right. We will take it up at

- 1 the break.
- 2 BY MR. MUELLER:
- 3 Q. All right. Well, so, anyway, as you have described
- 4 the vehicle dynamic, then, let's go back to -- as you were
- 03:23:40 5 describing part of the evaluation that you did of the
  - 6 Newbold proposed door and shoulder bolster, and tell me
  - 7 what that second part was that you were referring to.
  - 8 Well, all right. I knew that was going to
  - 9 be a bad question.
- 03:23:56 10 Why don't you tell me -- I asked you if
  - 11 you had evaluated the Newbold door and shoulder bolster.
  - 12 Tell me what -- give the jury a feeling for what you did.
  - 13 A. Well, as I said before, I did two things. One is
  - 14 statically to use it with a rider, but then to look at
- 03:24:14 15 what happens in the event of a pitch roll overturn to an
  - 16 unbelted occupant in the right rear seat.
  - 17 Q. Okay. And as far as what would happen in a pitch
  - 18 roll of the type you describe, with the Newbold door, what
  - 19 work did you do in that area?
- 03:24:33 20 A. What I did was to take the vehicle and put it on the
  - 21 tilt board up to an angle. I put the Newbold door and hip
  - 22 bolster at the backseat position, and I put 100 --
  - 23 Q. Hip bolster or shoulder bolster?
  - 24 A. Shoulder bolster.
- 03:24:50 25 Q. All right. So just so we are clear, and so the jury

- 1 is clear about the distinction, the hip bolster that he
- 2 had would be like something like this. The size is not
- 3 exact. But the shoulder bolster is more higher up, right?
- 4 A. Correct.
- 03:25:08 5 Q. So going to go back again. So you had the door and
  - 6 the --
  - 7 A. Shoulder bolster.
  - 8 Q. There we go. Okay. Now, go ahead.
  - 9 A. And I put a dummy in the backseat that weighed 105
- pounds or so, fifth percentile female dummy unbelted, and
  - 11 then took the vehicle and positioned it on a tilt table
  - 12 such that I could add -- when you really start the test,
  - 13 release the vehicle so that it would roll, and then catch
  - 14 as though it tripped, like occurred in this accident, and
- 03:25:39 15 then monitored what happened to the -- to the occupant.
  - 16 Q. And tell the jury what did happen.
  - 17 A. Well, what happened was the occupant was ejected over
  - 18 the door and around the shoulder bolster.
  - 19 Q. So that if I was sitting in a seat like this, and
- 03:25:58 20 someone picked up the back corner of my chair, so it was
  - 21 kind of tilted kind of down and forward like this, they
  - 22 would fall out like this?
  - 23 A. Something like that.
  - 24 Q. Okay. Now, have you -- and you did that on a 4010
- 03:26:17 25 MULE with a Newbold door and a Newbold shoulder bolster?

	1	A. Correct.
	2	Q. Now, in this case, did you receive information that
	3	the young Carter lady was the driver?
	4	A. Yes.
03:26:34	5	Q. Okay. And then there was a young Tiller lady, who
	6	was in this passenger seat?
	7	A. Yes.
	8	Q. Okay. Now, did you receive any information as to how
	9	the young Carter lady what her path of trajectory was
03:26:52	10	out of the vehicle?
	11	A. That she went through the front windshield opening,
	12	up and over the hood area of the of the sort of dash
	13	panel area.
	14	Q. Now, the hood area there that you pointed to in the
03:27:11	15	front, is it higher or lower than Mr. Newbold's door?
	16	A. It's higher than.
	17	Q. Okay. So that her trajectory
	18	MR. WEST: Excuse me, Your Honor. He is not
	19	addressing occupant dynamics. It is outside the scope of
03:27:26	20	his testimony. They have not
	21	THE COURT: Who is "his"?
	22	MR. WEST: Mr. Breen. Whose is it?
	23	THE COURT: Excuse me. Response.
	24	MR. MUELLER: He's addressing the door.
03:27:35	25	THE COURT: All right. I'll allow it.

```
1
                      MR. WEST: Oh, okay.
        2 BY MR. MUELLER:
        3
                 So that -- is the information about the path of
           travel of the young Carter lady consistent or inconsistent
        4
           with the test you did with Newbold's door and a dummy?
        5
03:27:48
                 It's consistent with that.
        6
           Α.
        7
                All right. And now the young Tiller lady, she was
           Q.
           sitting in the passenger seat; is that right?
        9
           Α.
                Yes.
       10
                Okay. Now, the passenger seat here, as we can see,
03:28:03
           has got a hip bolster, doesn't it?
       11
       12
                Yes. A hip restraint.
           Α.
                And did you receive any information as to whether the
       13
           Ο.
           young Tiller lady, now that -- can we pull up -- I think
           it's 151. It's the picture of Newbold's door.
       15
03:28:26
       16
                       THE COURT: Is this a good time for a break
       17 while you get organized?
       18
                       MR. MUELLER: It is.
       19
                       THE COURT: All right. Ladies and gentlemen,
       20 we will take our afternoon break at this time. Let's break
03:29:15
       21 for 15 minutes. Thank you.
       22 (Jury Out.)
       23
                       THE COURT: You may step down, sir. If you
       24 don't mind waiting outside. Sir, if you don't mind waiting
       25 right outside the courtroom. Thank you.
03:29:47
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1
                            All right. We need to take up the one
         2 issue of whether that topic you objected to is in the
         3 report or not.
                      MR. WEST: Yes, Your Honor.
         4
         5
                       THE COURT: Do you have a copy of the report
03:29:58
         6 handy?
         7
                      MR. WEST: I have his report.
         8
                       THE COURT: All right. Do you want to confer
         9 on that and then I'll come in five minutes -- in ten
       10 minutes and we can talk about it?
03:30:06
                      MR. WEST: A couple of things. Number one, the
       11
       12 occupant dynamics of the front driver coming over the hood
       13 has nothing to do with the door, so that is outside of his.
       14
                            And what was the other one that we said we
       15 would come back to.
03:30:21
       16
                      MR. MUELLER: The hood.
       17
                      MR. WEST: The hood latch. There is no hood
       18 latch.
       19
                       THE COURT: Why would we want to talk about a
       20 hood latch?
03:30:29
       21
                      MR. MUELLER: I can pass on it.
       22
                       THE COURT: All right. So what about the issue
       23 of the front driver?
       2.4
                      MR. MUELLER: The front driver has a height
03:30:37 25 that is almost exactly as Newbold's door, so it's the same
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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1 thing. Two people going over things --
        2
                       THE COURT: Go ahead.
        3
                       MR. WEST: Occupant dynamics are Dr. Carhart's
          testimony, not this guy's, and so I would move to strike it
        5 and an instruction for the jury to disregard this guy
03:30:52
        6 talking about motion of occupants because that is not his
          area. He is a driver, tester, design guy.
        8
                       THE COURT: But that is -- to some extent deals
        9 with the movement of the occupants.
                       MR. WEST: But, Your Honor, he is not
       10
03:31:08
       11 designated anything to do with any of the other occupants
       12 or even Mxxx Nxxxxxxx occupant dynamics.
       13
                       THE COURT: Did he testify to the same thing
       14 that he testified -- did he cover the same things he is
       15 testifying about now, including the occupant movement
03:31:19
       16 characteristics under certain conditions, in his report?
       17
                      MR. WEST: No, ma'am. No, Your Honor.
                      MR. MUELLER: What he did do is he said that
       18
       19 Newbold's door, because of its size and configuration, they
       20 are going to make no difference here. And the testimony
03:31:33
       21 about what these two other people did --
       22
                       THE COURT: Show me where in the report you are
       23 relying. Because I gather the objection is that it wasn't
       24 in the report.
       25
                      MR. WEST: It is not anywhere in there.
03:31:44
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	1	THE COURT: Is that right? Show me in the
	2	report and I'll be back in about eight minutes and I will
	3	look at it. Thank you.
	4	(Proceedings recessed from 3:31 to 3:48.)
03:48:12	5	(Jury Out.)
	6	THE COURT: All right. Let's address that
	7	issue real quickly.
	8	MR. MUELLER: Yes, Your Honor. Two things:
	9	One, while not agreeing with Mr. West, I have also been
03:48:19	10	told I have been going on too long. So I'm just going to
	11	cover one brief topic and then a couple of roundhouse
	12	questions. I will be done in ten minutes.
	13	THE COURT: Before you say that, I am inclined
	14	after looking at the testimony that was pulled on nets,
03:48:35	15	netting, to allow you to ask your Mr. Breen about that
	16	because I think that there was enough in the direct
	17	examination to permit well, to make it prudent for you
	18	to go ahead and ask your questions about netting, either at
	19	this time or on Tuesday.
03:48:56	20	MR. MUELLER: Let me confer with
	21	THE COURT: All right.
	22	MR. WEST: And while they're doing that, Your
	23	Honor, I would move for an instruction to the jury to
	24	disregard the hood interaction as well as the
03:49:07	25	THE COURT: I am not going to tell them to
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1 disregard it. I am simply going to welcome the information
        2 that no further questions will be asked in that area.
        3
                      MR. MUELLER: Thank you, Your Honor.
                      MR. WEST: Then what about the occupant
         4
        5 dynamics? Because that was not disclosed either from this
03:49:19
        6 witness. We are going to have Dr. Carhart. I just think
        7 it's inappropriate.
        8
                      THE COURT: That is all right. He didn't go on
        9 very long. He just very briefly described the overlap of
       10 it with his work. I don't think there is a need for an
03:49:31
       11 instruction.
       12
                      MR. MUELLER: Thank you.
       13
                       THE COURT: All right. I think we are ready to
       14|go.
       15
                      MR. MUELLER: I will ask a couple of questions
03:49:36
       16 about netting while he is here.
       17
                       THE COURT: That is fine.
       18
                       THE CASE MANAGER: All rise for the jury.
       19
                          (Jury in.)
       20
                       THE COURT: Please be seated, ladies and
03:50:04
       21 gentlemen.
       22
                            If the witness -- please, take the witness
       23 stand, sir. I think we are ready to proceed.
       24 BY MR. MUELLER:
      25 Q. Mr. Breen, I would like you to look at what I hope is
03:50:25
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- 1 going to show up as Exhibit 70.
- THE COURT: Keep your voice up, please.
- 3 MR. MUELLER: Sorry, Your Honor.
- 4 BY MR. MUELLER:
- 03:50:35 5 Q. Have you seen Exhibit 70 before?
  - 6 A. Yes, I have.
  - $7 \mid \mathbf{Q}$ . All right. It's a drawing that Mr. Newbold prepared?
  - 8 A. I saw it in the report, yes.
  - 9 Q. And at the bottom this is a depression pothole,
- 03:50:55 10 whatever we call it, right, that you read about in the
  - 11 testimony?
  - 12 A. Correct.
  - 13 Q. And this Exhibit 70 has a scale on it, does it?
  - 14 **A.** Yes.
- 03:51:06 15 Q. And did you scale -- using Mr. Newbold's scale here
  - 16 at the bottom, did you scale the distance of this hole
  - 17 from this fence?
  - 18 A. Yes.
  - 19 **Q.** And what is that distance?
- 03:51:17 20 **A.** It's about 16 feet or so.
  - 21 Q. Okay. Now, if I am going along at 14 miles an hour,
  - 22 can you tell the jury what is that in feet per second?
  - 23 A. It's about 22 feet per second.
  - 24 Q. Okay. So that -- would that mean that at the time
- 03:51:38 25 the vehicle reached the pothole, it was less than a second

away from hitting the fence? 1 2 Α. Yes. 3 Okay. Another question: There has been some Q. reference in the case to netting for vehicles of this 4 type. Do you have, from a design engineer's standpoint --5 03:51:52 6 well, first of all, did Mr. Newbold in any of his tests, 7 did he test netting? 8 Α. No. 9 Q. Okay. Do you have an opinion to a reasonable degree of engineering certainty whether netting is advisable or 10 03:52:07 needed on a vehicle like the MULE? 11 12 MR. WEST: Objection, foundation. 13 THE COURT: Overruled. 14 I do have an opinion. Α. 15 BY MR. MUELLER: 03:52:18 16 All right. And tell the jury what that is. 17 Well, I think, first of all, that the use of netting Α. 18 on a vehicle like this would significantly hamper the 19 utility of the vehicle in that if you're getting in and 20 out of it frequently, you have to deal with the net every 03:52:28 21 time. 22 The other thing is that it really doesn't 23 provide for a vehicle like this a lot of enhancement to a 24 vehicle from a usability or from a safety standpoint. 25 THE COURT: Sir, can you lift that mic so it is 03:52:40

- 1 closer to you and speak closer into it?
- 2 BY MR. MUELLER:

03:53:16

Q. Keep the mic close to you and repeat that answer because I missed half of it.

03:52:50 5 THE COURT: Thank you.

- A. From a usability standpoint, netting provides a
  disadvantage to users, to aid -- reposition the netting
  every time they get in and out of the vehicle. Or they're
  trying to check fence line, they wouldn't be able to get
  through the netting because the netting would be in the
- o3:53:04 10 through the netting because the netting would be in the way.
  - From an occupant-retention standpoint,
    given the overall design of this vehicle, it is not
    necessary. There are other features as part of the
    occupant-retention system, and the overall way this
    vehicle works that would make it suitable to not have
  - netting on a vehicle like this.
  - 18 Q. So as far as whether that is needed or advisable, is 19 your answer there "yes" or "no"?
- 03:53:28 20 A. It is not needed, and it is not advisable.
  - 21 Q. Okay. I would like to ask you a couple of kind of
  - 22 conclusions here. One, as a result of all the analysis
  - 23 you did in the accident reconstruction here, can you tell
  - the jury with a reasonable degree of engineering certainty
- 03:53:47 25 you have come to any conclusions whether or not the

- 1 Kawasaki MULE was the cause of this rollover?
- 2 A. Yes, I have come to conclusions.
- 3 **Q.** And what is that?
- MR. WEST: Objection, Your Honor. The cause of the rollover is not the issue.
  - 6 THE COURT: I agree. There is no issue as to
    - 7 any problem that caused the rollover. We're only looking
    - 8 at the cause of the injuries.
    - 9 BY MR. MUELLER:
- 03:54:09 10 Q. All right. Can you -- from the standpoint of the
  - 11 occupant-retention characteristics of the craft -- I mean
  - 12 of the vehicle, have you come to any conclusions as to
  - 13 whether the Kawasaki MULE was the cause of the injuries
  - 14 that Mxxx Nxxxxx received?
- 03:54:25 15 MR. WEST: Your Honor, that is Dr. Carhart's
  - 16 area, and --
  - 17 THE COURT: I'll allow his opinion.
  - 18 A. I do have an opinion.
  - 19 BY MR. MUELLER:
- 03:54:31 20 **o.** What is that?
  - 21 A. That it is not the cause of the ejection and
  - 22 injuries.
  - 23 Q. All right. And also, do you, in evaluating
  - 24 Mr. Newbold's designs, and that is to say the door and the
- 03:54:44 25 shoulder bolster, from a design standpoint, do you have --

- 1 have you come to a conclusion as to whether Mr. Newbold's
- 2 designs are either a good idea, needed, or advisable?
- 3 A. In terms of are they a good idea? No. Are they
- 4 advisable? No.
- 03:55:02 5 **Q.** All right.
  - 6 MR. MUELLER: I think I'll pass the witness,
  - 7 Your Honor. Oh, wait, one last.
  - 8 BY MR. MUELLER:
  - 9 Q. Look, these opinions that you just expressed there,
- 03:55:10 10 are they to a reasonable degree of engineering certainty?
  - 11 A. Yes, they are.
  - 12 MR. MUELLER: I'll pass the witness.
  - 13 MR. WEST: May I proceed?
  - 14 THE COURT: You may.
- 03:55:16 15 **CROSS-EXAMINATION** 
  - 16 BY MR. WEST:
  - 17  $\mathbf{Q}$ . Do you agree that engineers shall hold paramount the
  - 18 rights, safety, and welfare of the public?
  - 19 MR. MUELLER: Your Honor -- object, Your Honor,
- 03:55:24 20 relevancy. This is a code of ethics thing.
  - 21 THE COURT: We're going to stay away from that.
  - 22 BY MR. WEST:
  - 23 Q. Part of your resume has set forth you're a member of
  - 24 the National Society of Professional Engineers, right?
- 03:55:32 25 **A.** Yes, sir.

- 1 **Q.** Do you agree that that's an engineering paramount consideration?
- THE COURT: I think I have ruled that we are not -- that is just not relevant.

## 03:55:41 5 BY MR. WEST:

- 6 Q. All right. You were designated to -- on two things
- 7 in this case: how the accident occurred and to evaluate
- 8 the design and performance of this MULE, right?
- 9 A. Yes, sir.
- 03:55:50 10 Q. Those two things only?
  - 11 A. And to evaluate Mr. Newbold's claims about the
  - 12 design.
  - 13 Q. Okay. That is not what you told me your deposition,
  - 14 is it?
- 03:55:57 15 **A.** I think I did, sir.
  - 16 Q. Were you retained by counsel for Kawasaki to look at
  - 17 the facts available, how the accident occurred,
  - 18 accident-reconstruction-type activities, and also to
  - 19 evaluate the design and performance of the Kawasaki MULE
- 03:56:15 20 at issue in this case?
  - 21 Were those the things you were retained to
  - 22 do? Page 5 of your deposition, lines 18 through 23.
  - 23 A. Yes.
  - 24 Q. Say anything about Newbold's design in that answer?

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03:56:38 25 A. Well, about the design -- about the allegations about

- 1 the design.
- 2 Q. Design and performance of the Kawasaki MULE at issue
- 3 in this case. Did you say anything about Newbold's
- 4 design?
- 03:56:48 5 A. Not in that statement, no.
  - 6 Q. Now, the last billing I have for you for the
  - 7 lawyers -- I mean, the lawyers are who hired you. That is
  - 8 who you consider your client is, right?
  - 9 A. Yes, sir.
- 03:57:01 10 Q. The last billing we have is right under \$60,000
  - 11 through the middle of August of this year, right?
  - 12 A. I gave the bills. I don't know. That sounds about
  - 13 right, though.
  - 14 Q. Then we took your deposition on September 18th?
- 03:57:17 15 **A.** Yes. That's correct. 16th.
  - 16 Q. 16th? So it was a Sunday in Florida. I flew out
  - 17 there. We took your deposition.
  - 18 A. Yes.
  - 19 Q. What, for about three hours, and you had to leave and
- 03:57:27 20 catch a flight?
  - 21 **A.** Yes, sir.
  - 22 Q. I still had more questions and I expressed that to
  - 23 you, didn't I?
  - 24 **A.** We had arranged for three hours and that was what my
- 03:57:34 25 understanding was.

You know that I asked you to stay and I had 1 Q. additional questions? 2 3 MR. MUELLER: Your Honor --4 THE COURT: Excuse me, we won't take up 5 discovery disputes here. Move on to a different area. 03:57:40 6 BY MR. WEST: 7 All right. At the time of your report that was issued in January of this year, you had yourself about seven hours in the case, didn't you? I don't remember offhand but something like that. 10 Α. 03:57:57 I can show them to you if you would like. 11 Q. 12 If you want me to look at them, I'll be glad to. Α. 13 Sure. Pull your -- I have got the billing right Q. 14 here. 15 And the way you do your billing --03:58:19 16 actually, let me do it from the ELMO. You can watch. 17 MR. WEST: Would you mind moving it up? 18 MR. MUELLER: Sure. No problem. 19 BY MR. WEST: 20 The way you do your billing, Mr. Breen, you're the 03:58:33 Q. 21 principal on this case, right? 22 Α. Yes. And no other principals within ESI worked on this 23 24 case, did they? 25 Α. No. 03:58:43

- 1 Q. So this is as detailed as we get, right?
- 2 **A.** Yes.
- 3 Q. You have some other billings within your company but
- 4 you haven't given those to us, right?
- 03:58:53 5 A. Right. I provided invoices.
  - 6 Q. Right. This is all we get. So the principal -- so
  - 7 November 2016 you worked .8 hours, right?
  - 8 A. Yes.
  - 9 **Q**. And then your next bill was September 2017, you had
- 03:59:11 10 another .8 hours?
  - 11 **A.** Okay.
  - 12 Q. Right? So we're at 1.6. Then you got .3 hours?
  - 13 **A.** Okay.
  - 14 Q. And I am going to let you take a look at them and
- 03:59:27 15 confirm my numbers of about seven hours through the time
  - 16 of the report was your own involvement. Can you do that
  - 17 for me, please, sir?
  - 18 A. No. That is not correct.
  - 19 Q. All right. What was your time through the billing of
- 03:59:57 20 January 2018?
  - 21 A. The billing through January for my time is, looks
  - 22 like, about 17.2 hours.
  - 23 Q. All right. Through the -- oh, you went into the
  - 24 February billing?
- 04:00:06 25 A. The bill dated February is for time in January.

- 1 Q. Okay. So I am asking you the bills through the date
- 2 of your report.
- 3 A. About 17 hours.
- 4 Q. Okay. No. No. Through Jan 11th?
- 04:00:17 5 **A.** Yes.
  - 6 Q. All right. So if we add up the November, 16;
  - 7 September, 17; November -- we add these up through the
  - 8 date of your report, you are telling me it's 17 hours?
  - 9 A. If you include February, yes.
- 04:00:37 10 Q. Okay. I am through the date of your report.
  - 11 A. Right. Through the date of report which would be the
  - 12 invoice in October.
  - 13 **Q.** What was the date of your report?
  - 14 **A.** January 10th.
- 04:00:45 15 Q. And so the invoices through January 11th total about
  - 16 seven hours?
  - 17 A. You're not understanding. The invoices through
  - 18 January 10th only covered work through December.
  - 19 Q. I got you.
- 04:00:56 20 A. Invoice goes out in January that has another nine
  - 21 hours in preparation of the report.
  - 22 **Q.** I got you. So you have got 17 hours in on the case?
  - 23 A. At that point in time.
  - 24 Q. And you have about 31 hours total; is that right?
- 04:01:08 25 **A.** Something like that.

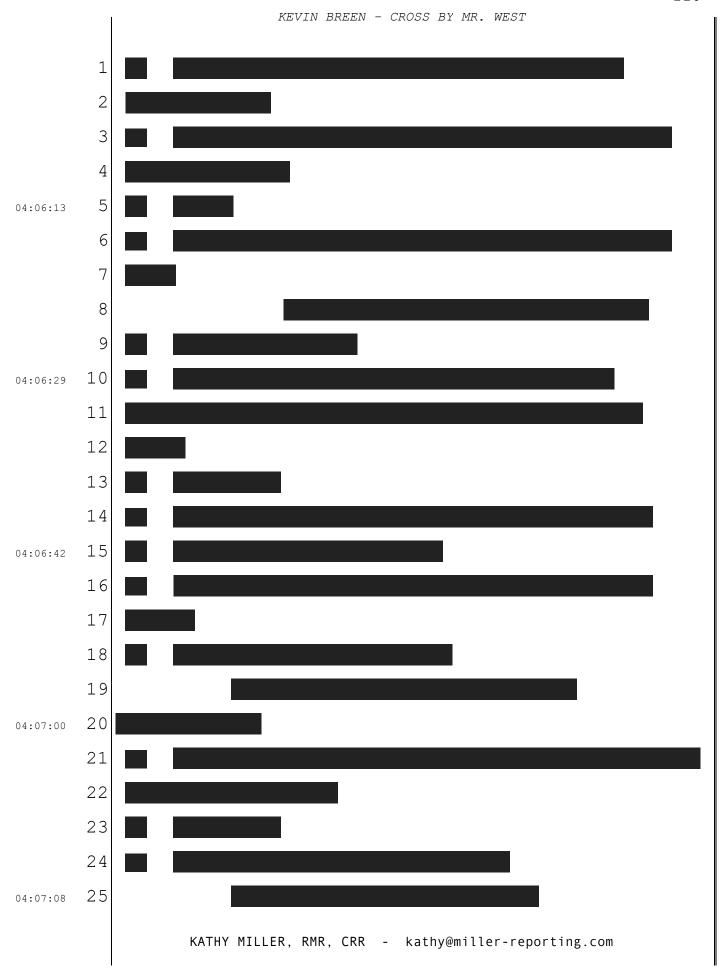
- 1 Q. And that was through the billing before your
- 2 deposition?
- 3 A. I mean, you have got them and added them up. That
- 4 sounds right.
- 04:01:19 5 Q. I know I have them. That's through your billing of
  - 6 the deposition, right? Is that about 31 hours total?
  - 7 A. Something like that.
  - 8 Q. Now, you have never testified in any case against a
  - 9 side-by-side manufacturer that it was defective or unsafe
- 04:01:35 10 in any way, have you?
  - 11 A. That's correct.
  - 12 Q. You're kind of a -- an all around special vehicles
  - 13 expert for hire, aren't you?
  - 14 A. I do work and have done for 40 years on special
- 04:01:47 15 purpose vehicles.
  - 16 Q. Tell me all the things that you are an expert in,
  - 17 Mr. Breen.
  - 18 A. Recreational vehicles, special purpose vehicles,
  - 19 accident reconstruction and human factors primarily.
- 04:01:57 20 **Q.** Statistics?
  - 21 A. I get involved looking at accident data. Sure.
  - 22 **Q.** Helmets?
  - 23 A. I get -- look at helmets if they're involved in an
  - 24 accident. Sure.
- 04:02:07 25 Q. What other things? Not just vehicles and helmets,

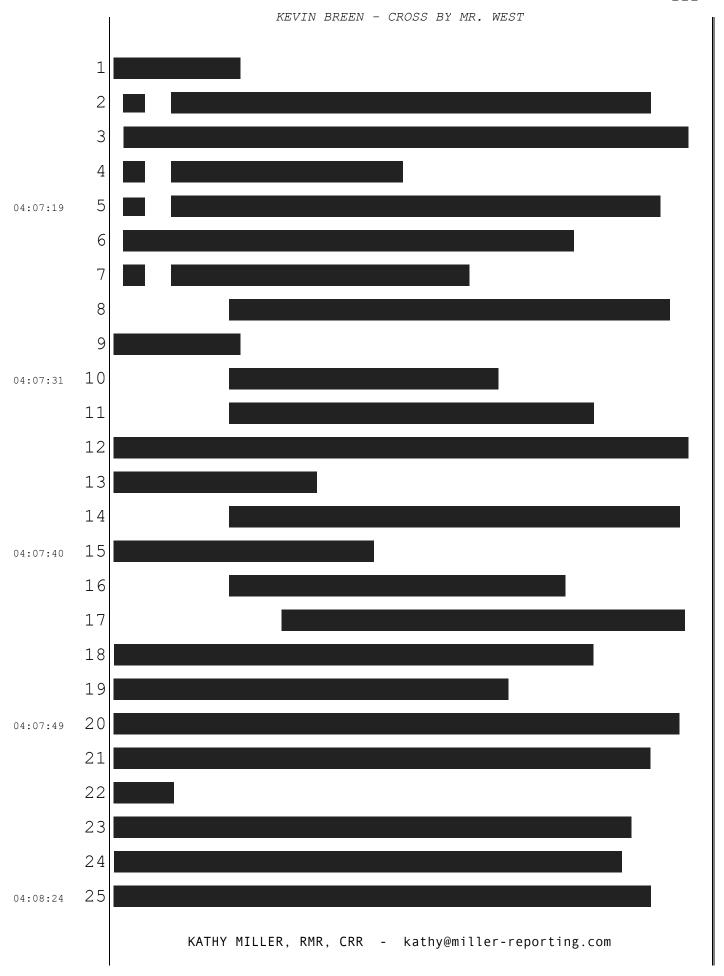
- 1 accident reconstruction, statistics. Anything else that
- 2 you're an expert in?
- 3 A. Recreational type of vehicles and products,
- 4 accidents, and boats.
- 04:02:20 5 Q. Such as three-wheelers and four-wheelers, the ATVs?
  - 6 A. Sure.
  - 7 Q. You have always thought the three-wheelers were okay,
  - 8 right?
  - 9 **A.** Some of them; some of them not.
- 04:02:28 10 Q. It was up to you they would still -- some of them
  - 11 would still be on the road, wouldn't they?
  - 12 A. Again, because of the standard situation, no.
  - 13 Q. But they could be made, couldn't they?
  - 14 A. They can't be today because there is not a standard
- 04:02:40 15 for them.
  - 16 Q. Well, the ten years expired.
  - MR. MUELLER: Relevance, Your Honor.
  - 18 BY MR. WEST:
  - 19 Q. Are we not in agreement?
- 04:02:45 20 THE COURT: Excuse me.
  - 21 MR. MUELLER: We're going to go on a long
  - 22 debate about something that occurred 20 years ago.
  - 23 Relevance.
  - 24 THE COURT: Move on to a different area. We
- 04:02:52 25 will come back to this if we need to.

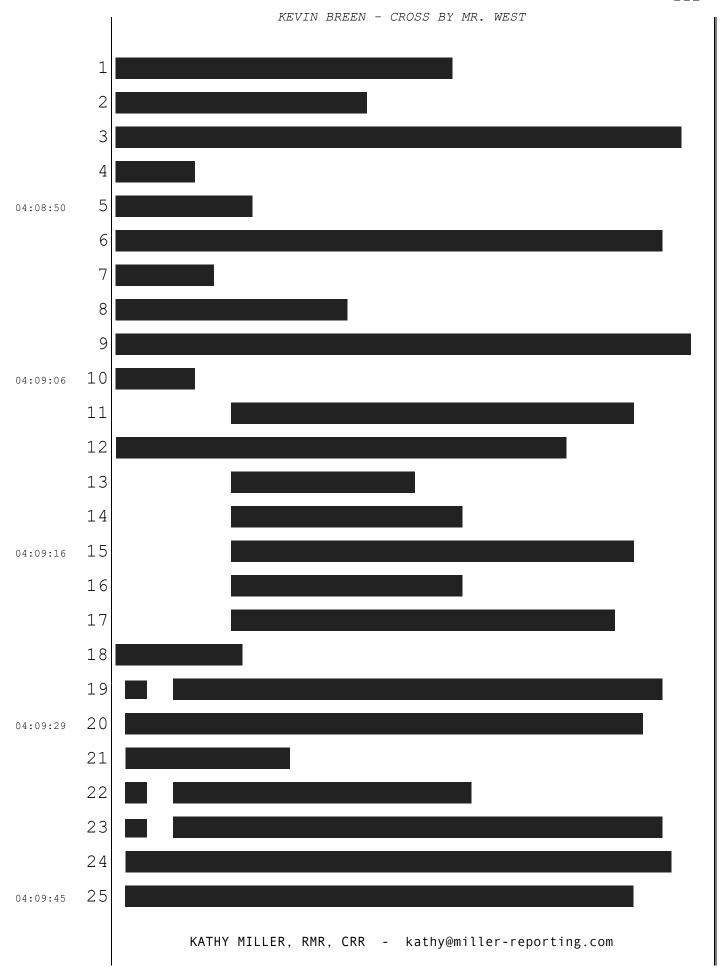
```
1 BY MR. WEST:
         2
                You're a go-to guy for the -- this type of vehicle,
           aren't you, as an expert?
                 I am not sure what you mean by "go to." I have spent
         4
           Α.
           my entire career working on special purpose vehicles.
         5
04:03:02
           know a lot about how they're designed and how they work.
         6
         7
                All right. Now, let's take a look at Depo Exhibit 5.
           Q.
         8
                            Do I need to drop this?
         9
                            Yeah, your Depo Exhibit 5 is a listing of
           materials that you had received through January 11th?
       10
04:03:38
       11
                      MR. MUELLER: It is not admitted, and -- it's
       12 not admitted so he is going --
       13
                       THE COURT: All right.
       14
                      MR. WEST: On Depo Exhibit 5 --
       15
                       THE COURT: Excuse me. Are you going to offer
04:03:48
       16 it?
       17
                      MR. WEST: Sure. Yes.
       18
                       THE COURT: Any objection?
       19
                      MR. WEST: It's listed in his materials.
       20
                      MR. MUELLER: Oh, no. Sorry. I got the wrong
04:03:55
       21
          one.
       22
                       THE COURT: All right.
       23
                      MR. MUELLER: Let me see it. Yes.
                                                           No.
       24 sorry. I have the wrong one. I have the wrong one.
      25 have no objection to that.
04:04:06
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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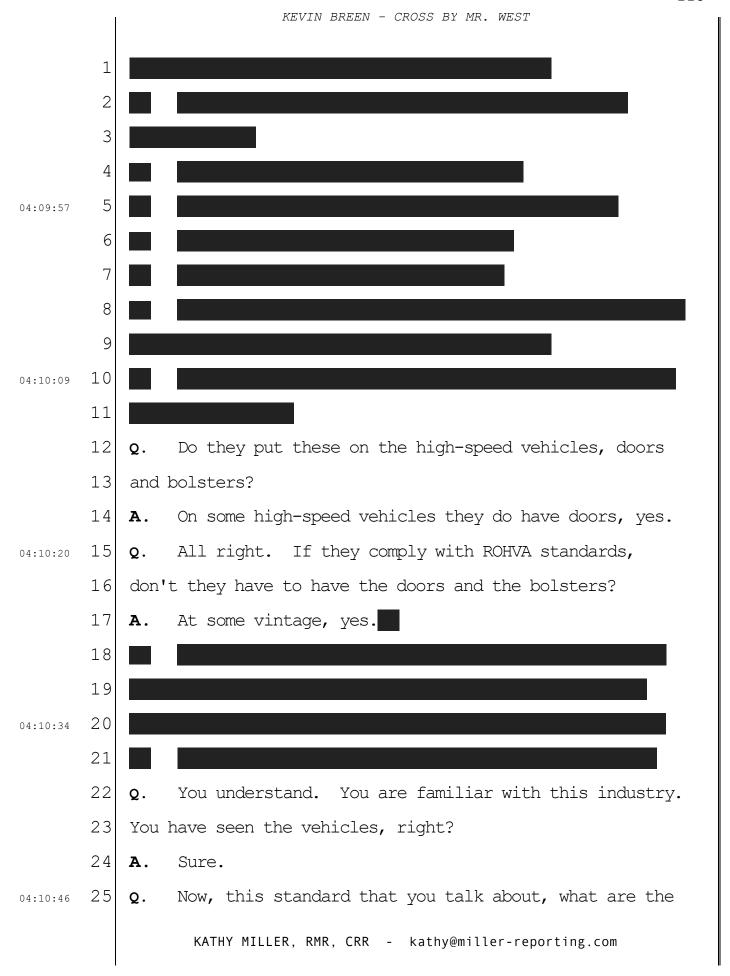
- 1 THE COURT: All right.
- 2 MR. WEST: What number will this be? When
- 3 you -- well, we have got it up here. When --
- 4 BY MR. WEST:
- 04:04:20 5 Q. The date of that is January 11, 2018, right,
  - 6 Mr. Breen?
  - 7 **A.** Yes.
  - 8 Q. And that was the listing of materials that you had
  - 9 received, your company had received, as of the date of
- 04:04:31 10 your report, January 11th or 12th of 2018, right?
  - 11 A. No.
  - 12 Q. That is not a list of the materials you received as
  - 13 of that date?
  - 14 A. No. This is a list of materials as of September
- 04:04:44 15 11th, 2018.
  - 16 Q. Oh, okay. Let me hand you this one, then. Let's
  - 17 take that one off. You're right.
  - This one is a previous list. You had
  - 19 several lists because you have gotten materials as the
- 04:04:59 20 case has progressed, right?
  - 21 **A.** Sure.
  - 22 **Q.** And this is the list of materials that you had given
  - 23 to us when you produced your report in January of 2018,
  - 24 right?
- 04:05:09 25 **A.** Yes.

You have never been to the site? 1 Q. 2 Α. I personally had not, no. 3 You had never seen the actual MULE? Q. Not this particular one, no. 4 Α. 5 You sent your son down here? Q. 04:05:19 6 Right. A. 7 And he made some measurements out there at the scene? Q. 8 A. Right. You didn't need to take Mr. Newbold's diagram and use a scale because your son made one of the two measurements, 10 04:05:27 11 didn't he? 12 A. Right. He pulled the distance off of that east side fence? 13 Q. 14 Α. Correct. He failed to pull the other distance, didn't he? 15 Q. 04:05:34 He does not have that distance recorded, at least 16 Α. 17 photographically. 18 He doesn't have a photograph of the distance, does Q. 19 he? 20 Α. No. He does not. 04:05:44 21 22 23 24 25 04:06:01









- 1 consequences for not following the standard?
- 2 A. Well, I think there's a number of consequences.
- 3 We're talking about item -- J2258, I assume you're talking
- 4 about.
- 04:11:00 5 **Q.** Yes, sir.
  - 6 A. Well, being noncompliant with the standard I think
  - 7 could have an effect on the marketplace in terms of other
  - 8 competitors are going to say, you know, this vehicle
  - 9 doesn't meet blah, blah, blah standards. But there is
- 04:11:14 10 also situations such as we're talking about here today. I
  - am sure if this vehicle didn't pass part of that standard,
  - 12 that would be part of your discussion cross-examining me.
  - 13 And there is also a certain amount of the government's
  - 14 involvement in these standards. Obviously, they're not
- 04:11:28 15 laws that people have to follow, but the government tracks
  - 16 what we're doing in SAE standards.
  - 17 Q. And when it gets way out of whack, then the
  - 18 government steps in?
  - 19 A. The government steps in when they feel it is
- 04:11:42 20 appropriate. They have got guidelines they use to step in
  - 21 and they do that.
  - 22 Q. And the government has not endorsed SAE J2258, have
  - 23 they?
  - 24 A. They participated in the development of it.
- 04:11:53 25 Q. You have got individuals who work for the government

- 1 that participated?
- 2 A. Well, people --
- 3 Q. It is not a law, is it?
- 4 A. It is not a law. You're correct.
- 04:12:03 5 Q. As I looked through your list of materials, I didn't
  - 6 see any investigator notes from the Kawasaki investigator
  - 7 that went and visited with the EMS witness. Did you get
  - 8 some of those notes?
  - 9 **A.** I don't know what you're talking about.
- 04:12:15 10 Q. Did you ever seek to -- to interview any of the
  - 11 emergency personnel out there?
  - 12 A. No. I was not involved in the medical stuff. That's
  - 13 not my area.
  - 14 Q. No. But the medical part, the EMS guys, they went
- 04:12:27 15 out to the scene. You got their depositions, didn't you?
  - 16 **A.** Yes.
  - 17 Q. Mr. Earp, Mr. Northcutt, Mr. Broussard?
  - 18 A. Those names sound familiar.
  - 19 Q. Did you read or watch their depositions? They were
- 04:12:40 20 videotaped and transcribed.
  - 21 A. I reviewed them, yes. I reviewed the paper part.
  - 22 Q. And did you see Mr. Earp, where he said that a
  - 23 Kawasaki investigator had come out and visited with him?
  - 24 A. I may have seen that. I don't recall that
- 04:12:55 25 specifically, though.

- 1 Q. Did you ever ask to see them? I understand that you
- 2 were dealing with medical issues a minute ago. But you
- 3 didn't want to deal with medical issues with me. Did you
- 4 seek to talk to those EMS guys that were at the scene?
- 04:13:08 5 A. Other than through their depositions, no.
  - 6 Q. Now, you now who Dr. Miller is?
  - 7 A. I do not.
  - 8 Q. Did you visit with Dr. Carhart about this case?
  - 9 A. I don't believe I have talked with him about this
- 04:13:33 10 case.
  - 11 Q. Did you visit with Dr. Carhart's partner,
  - 12 Dr. Miller --
  - 13 **A.** No.
  - 14 Q. -- about this case? Have you seen Dr. Carhart's
- 04:13:45 15 deposition?
  - 16 **A.** I have.
  - 17 Q. And are we certain, Mr. Breen, that you haven't
  - 18 spoken with anybody at Dr. Carhart's facility, Xponent?
  - 19 A. About this case, I don't have a recollection of that.
- 04:14:14 20 Q. If you had some detailed billing, would it be on
  - 21 that?
  - 22 **A.** No.
  - 23 Q. Do you remember when Dr. Carhart was deposed that he
  - 24 had anticipated lateral accelerations on the order of .7
- 04:14:34 25 Gs? Did you see that?

- 1 **A.** Yes.
- 2 Q. And that Mr. Breen conveyed lateral accelerations
- 3 along that level to Dr. Miller, and it is also in
- 4 Mr. Breen's report? Did you see that in Dr. Carhart's
- 04:14:48 5 deposition?
  - 6 A. Sure. I was -- he was provided a copy of my report.
  - 7 Q. But did you see the first part that Mr. Breen
  - 8 conveyed lateral accelerations along that level to
  - 9 Dr. Miller, but it is also in Mr. Breen's report? Did you
- 04:15:00 10 see that?
  - 11 A. Only time is when I wrote the report.
  - 12 **Q**. You didn't even talk to Dr. Miller?
  - 13 A. I don't know who Mr. Miller is.
  - 14 Q. Dr. Miller.
- 04:15:09 15 A. Dr. Miller.
  - 16 Q. So Dr. Carhart was agreeing with the .7 G lateral
  - 17 acceleration figure that you put in your report, that's
  - 18 the equilibrium point, right?
  - 19 A. Well, that's the initial point where the wheels start
- 04:15:23 20 to tip up.
  - 21 Q. In a static situation, right?
  - 22 A. Correct.
  - 23 Q. So in a static loading on a tilt table, .7 Gs is
  - 24 where anything will make it teeter or totter the other
- 04:15:35 25 way?

- 1 A. No. That's where the time, the first point in time
- 2 where the uphill wheels cut to leave the platform.
- 3 Q. That's right. And that is when the vehicle is still,
- 4 it's a static tilt table test?
- 04:15:44 5 **A.** Sure.
  - 6 Q. And so if the vehicle is moving and has the dynamic
  - 7 input of the shock absorbers depressing and then
  - 8 rebounding, and over a field like the pasture that was
  - 9 being operated in, certainly that would be enough to get
- 04:15:58 10 it unstable even at .7 Gs?
  - 11 **A.** No.
  - 12 Q. Okay. Have you made that analysis, Dr. -- Mr. Breen?
  - 13 **A.** Yes.
  - 14 Q. So .7 questions -- you're comfortable that is the
- 04:16:10 15 lateral acceleration in this event?
  - 16 A. Something greater than that.
  - 17  $\mathbf{Q}$ . That is not what you said.
  - 18 A. I thought I just said 45 minutes ago something
  - 19 greater than that.
- 04:16:20 20 Q. All right. Well, have you corrected Dr. Carhart?
  - 21 Because he still thinks you're at .7 Gs. Have you ever
  - 22 called him and let him know that he is misunderstanding
  - 23 you?

04:16:30

24 **A.** Let me see what he says there. I don't think he is 25 saying that.

- 1 Q. Okay. He says, "My assumption was based on my
  2 experience in UTV evaluations, but it also was my opening
  3 assumption, and I learned that it was fairly reasonable,
- of .7 Gs. Mr. Breen conveyed lateral accelerations along

and I would anticipate lateral accelerations on the order

- 6 that level to Dr. Miller, but it is also in Mr. Breen's report."
- 8 Is Dr. Carhart mistaken about your
- 9 position?

4

04:16:45

- 04:16:57 10 A. Something in excess of .7 Gs, sure.
  - 11 Q. That is not what he is saying.
  - 12 A. I think he is saying something pretty close to that.
  - 13 We're mincing words here.
  - 14 Q. Does he say in excess anywhere in that?
- 04:17:11 15 A. On the order of anticipate, any determination of
  - 16 where it is not specifically, where in the accident
  - 17 sequence it's .7. It's .7 at some point in time.
  - 18 **Q**. We know --
  - 19 A. It gets bigger than that.
- 04:17:26 20 Q. We know the vehicle rolled over?
  - 21 **A.** Sure.
  - 22 Q. And you did some calculations. You think that the
  - 23 turn radius was not as tight as 15 feet, don't you?
  - 24 A. It could be a little less than that.
- 04:17:39 25 **Q.** It would actually be a little greater than that?

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- 1 A. Right. I'm sorry, yeah. Yeah, you're right.
- 2 Q. Like 19 foot I think is what you --
- 3 A. It could be as high as like 18 point something.
- 4 Right.
- 04:17:49 5 Q. For your calculations you used 19 feet, didn't you?
  - 6 A. That's what it came out to be.
  - 7 Q. And so let's go -- and that's what you think it was
  - 8 more likely to be than 15 feet, right?
  - 9 A. I don't know.
- 04:18:00 10 Q. You don't have an opinion one way or the other?
  - 11 **A.** No.
  - 12 Q. Let's go through your 19 and figure out where that --
  - 13 we end up.
  - We did those calculations. I think
- 04:18:15 15 they're Exhibit 9 to your deposition, right?
  - 16 Yeah. Save you some drawing time, sir.
  - 17 Do you see on the screen there?
  - 18 A. Yes.
  - 19 Q. And Mr. Mueller asked you earlier how fast 14 miles
- 04:18:50 20 an hour was, and you said about 22 feet per second.
  - 21 You're talking about 15 miles an hour. Fourteen is just a
  - 22 little over 20 feet per second, isn't it?
  - 23 A. Correct.
- 24 **Q.** All right. And so at a 19-foot radius, you did some of those calculations, that arc, that 90-degree arc, would

- 1 be about 30 feet, wouldn't it?
- 2 A. That's not something I can do in my head.
- 3 Q. Well, let's do it together.
- 4 Because it's a less aggressive event at
- 04:19:33 5 that point, right? So if you have a 19-foot radius, we
  - 6 good with that?
  - 7 **A.** Okay.
  - 8 Q. Okay. And pi ID, right? What is 19 times 3.14?
  - 9 Times 38. Nineteen times 2. Sorry. About 120.
- 04:20:17 10 A. Total circumference is 120 feet.
  - 11 Q. And so that arc would be about 30 feet, right? That
  - 12 90-degree arc?
  - 13 A. Something like that, 29 something.
  - 14 Q. All right. And if a vehicle is traveling at 20 feet
- 04:20:34 15 per second, over a 30-foot period, that takes a second and
  - 16 a half, right?
  - 17 **A.** Yes.
  - 18 Q. And what is a yaw rate?
  - 19 A. It's the rate at which the vehicle goes from going
- 04:20:52 20 straight to sliding sideways.
  - 21 Q. Okay. And what do you think that distance was in
  - 22 this event, that distance before it slid sideways? Or do
  - 23 you have any evidence of that?
  - 24 A. There is no physical evidence to determine that.
- Q. Did you read in the EMS guys' depositions that they

04:21:26

04:21:39

04:21:49

04:22:25

04:22:44

KEVIN BREEN - CROSS BY MR. WEST

did not see any gouging, or any furrowing in the -- in the 1 2 field? Did you see that? 3 Α. Yes. If the vehicle was sliding out in an aggressive 4 5 manner, would you expect to see furrowing in a field? 6 No, not in grass like that. Furrow is where you're Α. 7 actually digging into the surface, whereas sliding on 8 grass is very different. 9 I got it. And so if a vehicle is traveling 20 feet 10 per second over a 30-foot arc in a second and a half, 11 what's that yaw rate? About 60 degrees per second? 12 Α. That is not a yaw rate. 13 Okay. What is that? Q. 14 That's a turn rate. Α. All right. If it's sliding over that entire period, 15 16 is that 60 degrees per second? 17 Α. In terms of yaw rate, no. 18 MR. WEST: All right. Pull up exhibit --19 Defense Exhibit 112.006, please. You don't have it? 20 That's all right. 21 TECHNICIAN: Don't have page six. 22 MR. MUELLER: Foundation, Your Honor. 23 THE COURT: Establish the predicate. 2.4 MR. WEST: Defendant's Exhibit 112. 25 MR. MUELLER: Put that down because it's not

```
1 in, and foundation.
         2
                       MR. WEST: It is in evidence.
         3
                       MR. MUELLER: No. It is not.
                       THE COURT: I don't believe so. Let me check.
         4
        5 If it's not --
04:22:52
         6
                       MR. WEST: It is in his book right here.
         7 | 1 | 1 | --
         8
                      MR. MUELLER: Some are still in there so that
         9 you can't --
                       THE COURT: Why don't you move on to a
       10
04:23:01
       11 different area? We will take this up over the break.
       12
                       MR. WEST: Let me see if I can lay a foundation
       13 with him, Your Honor. May I?
       14
                       THE COURT: It is not in evidence.
       15
                       MR. WEST: Yes. And I won't display it unless
04:23:09
       16 it gets in.
       17
                       THE COURT: All right. Thank you.
       18
                       MR. WEST: Actually, I may have the deposition
       19 exhibit.
       20 BY MR. WEST:
04:23:30
                You provided some documents to me during your
       21
           deposition, didn't you, sir?
       22
       23
                I provided you my file.
           Α.
       2.4
           Q. And one of the things in your file was exhibit -- was
04:23:50 25
          Depo Exhibit 6. I marked that?
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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MR. MUELLER: No, Your Honor. That wasn't in
        1
        2 his file. Mr. West brought it.
        3
                      THE COURT: All right. Is it in evidence?
                      MR. MUELLER: No.
        4
        5
                      MR. WEST: It's marked Defendant's Trial
04:24:01
        6 Exhibit 12.
        7
                      THE COURT: If it has not been admitted, then
        8 it is not in evidence.
        9
                      MR. WEST: I understand, Judge. I am going to
       10 lay a foundation.
04:24:09
       11
                      THE COURT: All right.
       12 BY MR. WEST:
       13 Q. Do you see Defendant's Trial Exhibit 112 as noted
          right here?
       14
       15
          A. Yes.
04:24:13
       16 Q. And did you make any of these entries on this
       17
          document -- on the document?
       18
           Α.
                No.
       19
           Q.
              This 15-foot radius turn, none of this is your
      20 writing?
04:24:23
       21
           A.
                No.
       22
                And do you know where this came from?
           Q.
       23
           Α.
                No.
                Did these lawyers help you draft up drawings?
       24
           Q.
04:24:30 25 A.
                No.
```

- 1 Q. Huh. Had you ever seen this before the day of your
- 2 deposition?
- 3 **A.** No.
- Q. Do you know where it came from?
- 04:24:38 5 **A.** No.
  - 6 Q. Do you know why they would produce this document to
  - 7 me?
  - 8 A. I have no idea.
  - $9 \, \mathbf{Q}$ . Well, you know that the notations here are
- 04:24:49 10 inaccurate?
  - 11 A. I have not looked at it for that purpose.
  - 12  $\mathbf{Q}$ . Okay. Why did you look at it?
  - 13 A. It is not something I have done or I have relied on.
  - 14 Q. Well, you have -- you have got this -- this part of
- 04:25:02 15 the drawing in your file, right?
  - 16 A. I have got what Mr. Newbold generated in my file and
  - 17 that is it.
  - 18 Q. And you don't know who made these other entries?
  - 19 A. No.
- 04:25:11 20 Q. Do your lawyer clients often help you with -- put
  - 21 together exhibits?
  - 22 A. Generally, not.
  - 23  $\mathbf{Q}$ . Have you done an analysis of the figures on that
  - 24 diagram to see if they're accurate?
- 04:25:35 25 **A.** No.

- 1 Q. I'm sorry, sir?
- 2 **A.** No.
- 3 Q. Let's look at Defendant's Exhibit 126. Can you
- 4 look -- refer -- can we look at five?
- 04:26:05 5 This is some tilt table testing of yours,
  - 6 right?
  - 7 **A.** Yes.
  - 8 Q. All right. Just so we -- we understand, this --
  - 9 these are both taped tests that you did in this case,
- 04:26:19 10 right?
  - 11 A. Correct.
  - 12 Q. You ever rigged a test?
  - 13 **A.** No.
  - 14 **Q.** That would not be right?
- 04:26:22 15 **A.** Correct.
  - 16 **Q.** It wouldn't be honest?
  - 17 A. I agree.
  - 18 Q. So here we have on the left side the operator at
  - 19 100-pounds, right?
- 04:26:35 20 **A.** Correct.
  - 21 **Q.** And then the front passenger at 100-pounds?
  - 22 A. Right.
  - 23 **Q.** And then the rear passenger at 130 pounds?
  - 24 A. Yes.
- 04:26:42 25 Q. And over here it's the same except your driver is 180

- 1 pounds. The driver is heavier?
- 2 A. Right.
- 3 Q. Now, what you're telling us on this left tilt table
- 4 is the vehicle becomes unstable at 34.8 degrees?
- 04:27:01 5 **A.** The tires initially leave the tilt table at 34.8,
  - 6 right.
  - 7 Q. Right. But when you load up the uphill with eighty
  - 8 pounds more, it becomes unstable at a lower angle. Do you
  - 9 see that?
- 04:27:14 10 **A.** Yes.
  - 11 Q. Now, these water dummies, they're -- they hold what?
  - 12 200 pounds of water each?
  - 13 A. 176 pounds plus -- plus you can add some weight to
  - 14 them.
- 04:27:28 15 Q. All right. And you did that?
  - 16 A. Right.
  - 17 Q. Let me see -- let me see just this one, please,
  - 18 Mr. McDonald.
  - 19 TECHNICIAN: I'm sorry, which one?
- 04:27:40 20 MR. WEST: The one on the left 126.05. Thank
  - 21 you.
  - 22 BY MR. WEST:
  - 23 Q. So, you belt in these water dummies, right?
  - 24 **A.** Right.
- 04:27:49 25 Q. Then you add some more belts because the seatbelts

- 1 that came with the Kawasaki MULE aren't enough to hold
- 2 these in, right?
- 3 A. Not for a tilt table. They will slide.
- 4 Q. I got you. And these have water in them, don't they?
- 04:28:00 5 **A.** Right.
  - 6 Q. And so the water is going to fall toward gravity?
  - 7 **A.** Sure.
  - 8 Q. And so the water is going to be concentrated lower
  - 9 than the center of gravity of a person, right? You got
- 04:28:16 10 water -- all the water is going to be concentrated right
  - 11 here. There is nothing above that, right?
  - 12 **A.** Right.
  - 13 Q. Okay. So the center of gravity will move as it
  - 14 tilts?
- 04:28:27 15 **A.** A little, yes.
  - 16 Q. Well, it will move as much as it tilts?
  - 17 A. Well, I mean, if I tilt this, the water moves a
  - 18 little bit and that is why the dummies are designed the
  - 19 way they are. They don't have legs and arms so we can
- 04:28:41 20 take all that into account. Water is pretty stationary
  - 21 their during the course of the test.
  - 22 Q. I got you. So you got the moving water. You got
  - 23 these double-strapped water dummies in there, and the one
  - 24 that's loaded heavier in the driver's side is less stable
- 04:28:57 25 than the one that's lighter on the driver's side,

- 1 according to this tilt table test?
- 2 A. Correct.
- 3 Q. Let's take a look at Exhibit 126, page 14, please.
- 4 All right. That's your son?
- 04:29:16 5 **A.** Yes.
  - 6 Q. And you have got some rear-occupant protection items
  - 7 identified here, right?
  - 8 A. Correct.
  - $9 \mid \mathbf{Q}$ . Here's the hand grip. He has got gloves on. He is
- 04:29:30 10 holding on to the hand grip?
  - 11 **A.** Right.
  - 12 Q. It goes across the back from B-pillar to B-pillar?
  - 13 A. Right.
  - 14 Q. And it's got the ROPS, the rollover protective
- 04:29:40 15 structure?
  - 16 **A.** Right.
  - 17 Q. And there's a specific standard for how that rollover
  - 18 protective structure is tested, right?
  - 19 A. Yes.
- 04:29:47 20 Q. It's one of the SAE standards?
  - 21 A. There are several SAE standards related to that.
  - 22 **Q.** This one is tested in accordance with J1194?
  - 23 **A.** Yes.
  - 24 Q. And also, it's FMVSS 216 compliant, right?
- 04:30:02 25 **A.** That's what I am told, yes.

- 1 Q. You saw the label on there?
- 2 **A.** Yes.
- 3 Q. You don't have any reason to believe that they're
- 4 mislabeling this MULE, do you?
- 04:30:11 5 **A.** No.
  - 6 Q. Did you ever call anybody or talk with anybody at
  - 7 Kawasaki at all about this case?
  - 8 A. No.
  - 9 Q. So, now, the ROPS system, that is not required by
- 04:30:23 10 anything other than this SAE standard?
  - 11 A. Well, it's not required. Kawasaki chose to do it
  - 12 anyway.
  - 13 Q. All right. And they close to comply with the FMVSS
  - 14 216 with this ROPS, right?
- 04:30:37 15 **A.** Apparently so.
  - 16 **Q.** You saw that?
  - 17 A. Right.
  - 18 **Q.** Raised an eyebrow to you?
  - 19 A. No. They didn't have to do it, but they did.
- 04:30:43 20 Q. All right. And that's a good thing?
  - 21 **A.** Sure.
  - 22 Q. And there is nothing in this SAE standard that
  - 23 prevents Kawasaki from putting safer doors and bolsters on
  - 24 the sides, does it?
- 04:30:53 25 A. No. They can do that if they felt it was

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appropriate.
         1
                 And then they have got this footrest. Is it a
         2
            footrest or is that -- is that an abbreviation for
         4
           restraint? Because we got a hip restraint. Is that a
         5
           foot restraint?
04:31:07
         6
                 It does both. It is where your foot rests but also
           Α.
           restrains it.
                 Do you believe that that B-pillar is sufficient for
         8
           Q.
            foot restraint from a design standpoint?
                 If your feet's in there, it is going to stay in
       10
           Α.
04:31:16
       11
           there, yes.
                 And you think that is good?
       12
           Q.
                 Sure.
           A.
       13
       14
       15
04:31:23
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       18
       19
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04:31:27
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       2.4
       25
04:31:32
                   KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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KEVIN BREEN - CROSS BY MR. WEST 1 2 3 4 5 04:31:38 6 BY MR. WEST: 7 Have you seen any design drawings anywhere, Mr. Breen, that shows that the B-pillar is intended to be any kind of a restraint for the rear seat, or front seat, 10 or the rear seat passengers? 04:31:48 I don't recall. I haven't seen that. 11 12 MR. WEST: All right. May I switch this, 13 please? 14 BY MR. WEST: This is a photograph of a B-pillar in that same area 15 04:31:59 that your son's foot was on a different model. It is a 16 17 demo model. Do you see that? The seat is off of the 18 front, but there is your B-pillar area. Do you recognize 19 that? 20 I mean, I see what's on the photograph. I am not 04:32:11 21 sure I know exactly what you're trying to show me, what 22 vehicle it is and that type of thing. 23 All right. It's a -- it's a 2013 Kawasaki MULE. Did you -- did you review the B-pillar on the driver's side to 25 see what kind of foot restraint was available over there? 04:32:28 KATHY MILLER, RMR, CRR - kathy@miller-reporting.com

- 1 A. I looked at it. I don't have a recollection. No.
- 2 Q. Does that look familiar to you? That area right
- 3 there?
- 4 A. Offhand, it does, in general.
- 04:32:43 5 Q. Okay. What is this area right here?
  - 6 A. It's the seatbelt.
  - 7 **Q.** How about the parking brake?
  - 8 A. Yeah. That's right.
  - 9 Q. All right. Do you think that's enough restraint
- 04:32:57 10 there on the driver's side B-pillar?
  - MR. MUELLER: Relevance, Your Honor. Nobody
  - 12 was sitting in that seat.
  - 13 MR. WEST: We are talking about design, overall
  - 14 design.
- 04:33:05 15 THE COURT: All right. I am going to allow
  - 16 this one question and then we will move on. Thank you.
  - 17 **A.** I have not done a thorough evaluation of the driver's
  - 18 side. It looks to me like it would perform the function.
  - 19 BY MR. WEST:
- 04:33:15 20 Q. You are okay with that?
  - 21 A. In general, yes, but I haven't done a thorough
  - 22 evaluation.
  - 23 Q. Did you evaluate the foot restraints anywhere else in
  - 24 the vehicle?
- 04:33:25 25 A. No. In this case I was focused on the right rear

- 1 passenger.
- 2 Q. Did you ever seek to interview anybody at Kawasaki
- 3 about what they did to evaluate whether doors and bolsters
- 4 were appropriate?
- 04:33:49 5 A. No. I did my analysis independent of them.
  - 6 Q. And everything that you reviewed was on your listing
  - 7 of materials that you gave me at or around the time of
  - 8 your deposition in September?
  - 9 **A.** Yes.
- 04:34:02 10 Q. And you had depositions, reports, expert reports,
  - 11 pleadings, discovery matters, correct?
  - 12 A. Right.
  - 13 Q. Did you -- were you missing anything that you felt
  - 14 was necessary for your evaluation?
- 04:34:15 15 **A.** No.
  - 16 Q. And do you feel like you needed to go out to the
  - scene or were you okay with going with your son's
  - 18 evaluation?
  - 19 **A.** Perfectly comfortable with his evaluation. We have
- 04:34:25 20 been working together in this business for ten years now.
  - 21 MR. WEST: Pull up Defendant's Exhibit 16.001.
  - 22 Blow up this top right, please. I'm sorry, this top right.
  - 23 Yeah.
  - 24 BY MR. WEST:
- 04:34:55 25 Q. You said something about this being a utility

- 1 vehicle, right?
- 2 **A.** Yes.
- 3 Q. Do you know what MULE stands for?
- 4 A. I think maybe I don't know what it stands for.
- 04:35:03 5 Q. Multiuse light equipment.
  - 6 A. I never heard that before.
  - 7 Q. All right. Take a look at this label that's
  - 8 somewhere on the MULE. "The protective headgear reduces
  - 9 the risk of injury." Do you recall that?
- 04:35:20 10 **A.** Sure.
  - 11 Q. A helmet is recommend when this vehicle is being used
  - 12 for what purpose?
  - 13 A. Recreational purposes or other aggressive driving.
  - 14 Q. All right. Or any aggressive driving?
- 04:35:29 15 A. I stand corrected. Yes, sir.
  - 16 Q. So this vehicle can be used not only for farm use but
  - 17 also for recreational use, by its own labeling?
  - 18 A. Sure. It can be used for light recreation, like if
  - 19 you wanted to go camping, hunting, that kind of stuff, it
- 04:35:44 20 works for that.
  - 21 **Q.** Fishing?
  - 22 **A.** It works for that. It is an exploring vehicle.
  - 23 **Q.** Riding around in a pasture?
  - 24 A. Sure.
- 04:35:52 25 THE COURT: All off -- I'm sorry. Is it all

- 1 off-road?
- THE WITNESS: Yes.
- 3 BY MR. WEST:
- 4 Q. You don't want to operate these on pavement?
- 04:35:58 5 A. No. That is not appropriate.
  - 6 Q. Different coefficients of friction between the tires
  - 7 and the ground on cement and asphalt versus in pastures
  - 8 and off-road?
  - 9 A. Right. Right.
- 04:36:07 10 Q. The suspension is not designed to be on-road?
  - 11 A. Well, the suspension is not so much a factor, but the
  - 12 vehicle is not designed, in general, to be on-road.
  - 13 Q. The full tire, suspension, center of gravity, all of
  - 14 that, it is meant to be off-road?
- 04:36:23 15 **A.** Correct.
  - 16 Q. And the -- what's the difference between light
  - 17 recreation, and moderate recreation, and recreation?
  - 18 A. Well, I am not sure that is anything published, but
  - 19 in my view of having looked at these vehicles for 20 years
- 04:36:38 20 or more, that light recreation is kind of when you're just
  - 21 out using the vehicle for exploring, sightseeing, things
  - 22 like that. I would say sort of mid range is where you
  - 23 might be out in a sand dune or something like that where
  - 24 it is more -- the terrain is more part of the fun in
- 04:36:52 25 driving. And that's where the heavy recreation gets into

- 1 more of a competitive-type situation where you're really
- 2 out there to drive it to drive it.
- 3 Q. Yeah. And you have read the manuals and paperwork
- 4 that came with this MULE, right?
- 04:37:04 5 A. I have reviewed the manual, yes, sir.
  - 6 Q. All right. And you referred to light recreational in
  - 7 your report a number of times. Did you see anywhere in
  - 8 the manual where Kawasaki advises, it gives any kind of
  - 9 directions, suggestion as to what light recreation is?
- 04:37:21 10 A. No. That report -- that term of "light" is my term.
  - 11 Q. You got in your report, you -- you note that
  - 12 Mxxx Nxxxxx was holding onto the handrail in the backseat,
  - 13 immediately before the turn?
  - 14 A. I -- I reference that at a part in the report, yes.
- 04:37:42 15 Q. And you also noted that all the testimony was that
  - 16 when it turned, it kind of tottered for a second, and
  - then -- and then went over. Do you remember that?
  - 18 A. There was testimony to that regard, yes.
  - 19 Q. Do you remember you and I kind of chuckled on what
- 04:37:58 20 "tottering" meant?
  - 21 **A.** We did.
  - 22 Q. And figured it was the other half of "teeter," right?
  - 23 A. I guess that's what it is, but that's --
- Q. All right. Have you heard anything from any witness
  04:38:09 25 anywhere that has this vehicle up like this? You had the

- 1 tail end up when Mr. Mueller was with you, like this.
- 2 Like it was diagonal. Have you seen any testimony from
- 3 anybody that supports that?
- 4 A. That's not the way we have it, but that is pretty
- 04:38:27 5 clear that the vehicle overturned, and it is pretty clear
  - 6 that the vehicle overturned and hit on the upper A-pillar,
  - 7 so at some point in time it was like that.
  - 8 Q. Okay. Do you believe that --
  - 9 A. But by that point in time the occupants were ejected
- 04:38:42 10 so they wouldn't know that.
  - 11 Q. The occupants what?
  - 12 A. They would have been ejected well before that point
  - 13 in time.
  - 14 Q. You are not designated on occupant dynamics, are you?
- 04:38:49 15 A. No. But that's pretty obviously your question.
  - 16 That's where they would be at that point in time, so they
  - 17 wouldn't know.
  - 18 Q. But how about any testimony from any EMS guys that
  - 19 showed any kind of furrowing or burying of the front end
- 04:39:05 20 hitting the ground? Do you see any of that?
  - 21 **A.** No.
  - 22 Q. Now, you don't always wear your seatbelt when you
  - 23 operate these, do you?
  - 24 A. I do if I am operating for real. If I move them
- 04:39:24 25 around a parking lot, or around --

- 1 Q. I couldn't understand you.
- 2 A. I just said, I have moved vehicles around without
- 3 wearing a seat belt; but if I am out on a real ride, I put
- 4 my seatbelt on.
- 04:39:35 5 Q. How about the parking brake? Do you always use it
  - 6 when you get out of it?
  - 7 **A.** No.
  - 8 MR. WEST: Pull up that label again. Okay.
  - 9 Right above.
- 04:39:51 10 BY MR. WEST:
  - 11 Q. Do you know that you're violating the warnings when
  - 12 you get out and leave it running and don't apply the
  - 13 parking brake?
  - 14 A. I'm aware of that, yes.
- 04:40:00 15 Q. Even in some of the testing you produced to us, you
  - 16 got out and you looked at some tree lines. You left it
  - running. You didn't put the parking brake on, did you?
  - 18 A. That's correct.
  - 19 Q. And let's talk about SAE standards versus Federal
- 04:40:23 20 Motor Vehicle Safety Standards. Okay. Which of those
  - 21 is an actual federal government standard?
  - 22 A. Federal Motor Vehicle Safety Standards are Federal
  - 23 Motor Vehicle Safety Standards by the government.
  - 24 **Q.** That's law?
- 04:40:37 25 **A.** Yes, sir.

- 1 MR. WEST: Can you pull up Defense Exhibit 16,
- 2 page 8, please? Blow it up.
- 3 BY MR. WEST:
- 4 Q. That's the label we're talking about on the ROPS
- 04:40:59 5 requirement, and Kawasaki chose to comply with this not
  - 6 only SAE J1194, but also it chose to comply with this one
  - 7 and only Federal Motor Vehicle Safety Standard. Do you
  - 8 see that?
  - 9 **A.** Yes.
- 04:41:14 10 **o**. Didn't have to?
  - 11 A. Correct. Did not have to.
  - 12 Q. Are you familiar with Federal Motor Vehicle Safety
  - 13 Standard 205?
  - 14 A. In general. I have not memorized what they are, but
- 04:41:24 15 I am familiar with -- at one point in time in my life, I
  - 16 have reviewed them all, but I can't quote like a Bible
  - 17 verse.
  - 18 Q. I understand. You know it dealt with occupant
  - 19 containment and requirements for unbelted occupants. Did
- 04:41:38 20 you know that?
  - 21 A. I haven't looked at it in a while.
  - 22 **Q.** Would you take my word on that?
  - 23 A. I haven't looked at it in a while. I --
  - 24 Q. Do you know why Kawasaki didn't choose to test for
- 04:41:52 25 unbelted occupants?

- 1 A. Well, it is my understanding that their intent was
- 2 the vehicle should be used with people wearing their --
- 3 that their -- their seatbelts. And as a result their
- 4 testing was done with their occupants belted, the way it
- 04:42:07 5 was intended to be used.
  - 6 Q. And do you have any indication, other than what
  - 7 Mr. Hisada's testimony was, as to why they didn't test for
  - 8 unbelted occupants?
  - 9 A. Well, that -- I don't other than what he said, but it
- 04:42:20 10 seems to me that, you know, this is a -- a very stable
  - 11 vehicle.
  - 12 Q. That is all. I am not asking why Kawasaki --
  - 13 A. I don't know. I have done my analysis kind of
  - 14 independent of theirs.
- 04:42:29 15 MR. WEST: All right. Pull up Defense Exhibit
  - 16 135, please, page 7. Blow up this right here. Yeah.
  - 17 BY MR. WEST:
  - 18 Q. This is from the ROHVA standard. This is one of the
  - 19 defense exhibits. Do you see this? Have you seen that
- 04:42:58 20 before, Mr. Breen?
  - 21 **A.** Yes.
  - 22 **Q.** As the definition of an ROV, right?
  - 23 A. Right.
  - 24 Q. That's -- the ROHVA, that's another industry
- 04:43:07 25 organization, isn't it?

- 1 **A.** Yes.
- 2 **Q.** And --
- 3 A. It's another industry.
- 4 Q. Yes. I got you. So let's see how many of these
- 04:43:16 5 bullet points from the definition of an ROV the 2013
  - 6 Kawasaki MULE met.
  - 7 Does it have a steering wheel for steering
  - 8 control?
  - 9 **A.** Yes.
- 04:43:25 10 Q. That's one. Nonstraddle seating?
  - 11 **A.** Yes.
  - 12 Q. That's two. Let's skip over three because I don't
  - 13 think we are going to get that one.
  - We are not going to get three, right?
- 04:43:37 15 **A.** No.
  - 16 Q. We got four, gross weight vehicle weight rating no
  - greater than 1700 kilograms. That's about 3700 pounds?
  - 18 Does this one comply with that?
  - 19 A. I haven't memorized it. I don't remember offhand.
- 04:43:53 20 Q. Do you have it in your file somewhere, the
  - 21 specifications?
  - 22 A. The specifications have the gross vehicle weight
  - 23 rating. They have a maximum vehicle load, but I don't
  - 24 have a GVRW here.
- 04:44:37 25 Q. You don't have that in your file?

- 1 A. It's not in the specifications I have here.
- 2 Q. Okay. Well, we will pull it up for you. How about
- 3 less than eighty inches wide? This one is a little less
- 4 than five feet wide, isn't it?
- 04:44:49 5 **A.** Right.
  - 6 Q. So we will check on that one also.
  - 7 Engine displacement less than 1,000 CCs,
  - 8 this one?
  - 9 A. This one does, yes. Correct.
- 04:44:56 10 **Q**. I'm sorry, sir?
  - 11 A. Correct.
  - 12 Q. And does it have a 17-character VIN or pin?
  - 13 A. I assume so. I have never counted them, though.
  - 14 Looks like it.
- 04:45:06 15 Q. So if we assume, Mr. Breen, that the gross vehicle
  - 16 weight rating is no greater than 3750 pounds, then this
  - 2013 Kawasaki MULE meets all the requirements of an ROV
  - 18 under the ROHVA standards except it doesn't go fast
  - 19 enough?
- 04:45:21 20 **A.** That's correct.
  - 21 **Q.** You know vehicles roll over under 30 miles an hour?
  - 22 **A.** Depends how you operate them. That can happen.
  - 23 Q. Sure. Under 25 miles an hour?
  - 24 A. Again, depending how you operate them, it can happen.
- 04:45:33 25 **Q.** And we know this one was in low gear?

- 1 A. That's the testimony, yes.
- 2 Q. You don't have any evidence otherwise, do you?
- 3 A. One way or the other, I don't have any evidence.
- 4 Q. You don't have any evidence that it was not in low
- 04:45:43 5 gear?
  - 6 A. Correct. There is no evidence other than people's
  - 7 testimony.
  - 8 Q. Let's go to page 34. So if we look at occupant
  - 9 retention systems, right? See this up here? Just give me
- 04:46:13 10 the first couple paragraphs.
  - This is in the ROHVA standards, right?
  - 12 A. Correct.
  - 13 Q. They define occupant retention systems, right? Seat
  - 14 belts?
- 04:46:23 15 **A.** Yes.
  - 16 Q. But that's a different type, that's a three-point
  - 17 type instead of the kind that they put in the MULE?
  - 18 A. Right.
  - 19 Q. The ones that come across the shoulder, like he
- 04:46:37 20 tested in the tilt table with the cross straps?
  - 21 A. That's different. It's like a car, seatbelt like you
  - 22 have.
  - 23 Q. Like you tested the water dummies with the seatbelts?
  - 24 A. Well, it's a little different but --
- 04:46:48 25 **Q.** But the same routing?

- 1 A. Same routing, right.
- 2 Q. And then seatbelt reminder. Any seatbelt reminders
- 3 on the MULE?
- 4 A. No.
- 04:46:57 5 Q. Anything that kept Kawasaki from putting seatbelt
  - 6 reminders? Is that the bell, the ding, ding, ding, the
  - 7 seatbelt bell?
  - 8 A. The thing we have dealt with over the years, yes.
  - 9 Q. Does it irritate you?
- 04:47:07 10 **A.** At times, sure.
  - 11 Q. Does it remind you to put a seatbelt on?
  - 12 A. At times it does.
  - 13 **Q.** And that's what this 11.2 is?
  - 14 **A.** Right.
- 04:47:14 15 Q. There wasn't anything like that, advising, warning,
  - 16 reminding people to put seatbelts on in this particular
  - 17 vehicle, was there?
  - 18 A. Correct. There was not. Other than two of the
  - 19 warning label.
- 04:47:24 20 Q. I got you. And then let's go to the 11.3.1.1. There
  - 21 are two areas down here, talks about zone one for -- under
  - 22 the occupant retention system, the protection, there is
  - 23 zone one. What is in the zone one?
  - 24 A. Leg and foot area.
- 04:47:44 25 **Q.** Okay. And how does --

Mr. McDonald, let me have --1 MR. WEST: 2 highlight from here down to here. Right here. 3 And down a few lines. 4 BY MR. WEST: That raised entryway, it's similar to a footwell. 5 04:48:00 has a lip, right? Do you have the standard in your file 6 7 there? 8 Α. Yes. 9 Q. Good. Why did you have that standard in your file, that ROHVA standard? 10 04:48:16 Because I pulled several standards here for ANSI 11 12 B56.8 to have the standards to look at different types of vehicles. 13 And the -- according to this other industry voluntary 14 standard for occupant retention systems, Zone 1, why don't 15 04:48:32 you read that highlighted portion out loud for us, please, 16 17 sir, Mr. Breen. 18 "The raised entryway shown as the shaded area in 19 Figure 6, otherwise a barrier, door, net, or other 20 suitable device, shall be provided to block the shaded 04:48:49 21 area in Figure 6 when the vehicle is in operation." 22 And so for these other vehicles, they get either a 23 foot well, or a barrier, or bolsters and a door? 2.4 This is what this standard requires, yes. 25 And then let's go to 11.3.1.2. That's Zone 2. 04:49:12 0.

- 1 you agree that all passengers are entitled to safety?
- 2 A. Sure.
- 3 Q. And so Zone 2 of this other standard provides for
- 4 shoulder and hip bolsters?
- 04:49:34 5 A. Can you go back to the first page? What year
  - 6 standard are we looking at here?
  - 7 Q. This is defense exhibit -- I think it's the 2011.
  - 8 Which one do you have?
  - 9 A. I have 2010 which would be applicable to vehicles --
- 04:49:49 10 this is not applicable to vehicles of the 2013 vintage.
  - 11 That is why I asked.
  - 12 Q. Okay. But does the -- does that standard provide the
  - 13 same level of protection for occupants when we are just
  - 14 focusing on the feet, and then the shoulders and the hip
- 04:50:05 15 protection?
  - 16 A. There are some differences.
  - 17  $\mathbf{Q}$ . What are the differences in the 2010 and the 2011?
  - 18 Did it get more protective or less protective?
  - 19 A. Over time, there has been an increase in protective
- 04:50:19 20 areas in the ROHVA standard.
  - 21 Q. So let's just focus on those two zones, please,
  - 22 Mr. Breen. At a very high level, just tell me the
  - 23 differences in those two zones, one and two.
  - 24 A. Well, the 2010 version, which is typical of the 2013
- 04:51:24 25 model vehicles, has a provision for the restraints that

- 1 meet J2292, which is seatbelts.
- 2 Q. And what is -- what's the one that we are looking at?
- 3 A. This is 2011, which would be applicable to vehicles
- 4 manufactured in 20, either, 14 or 15. I can't remember
- 04:51:40 5 now which.
  - 6 Q. Yeah. But what's the difference in the seatbelt
  - 7 standard?
  - 8 A. Seatbelt is the same.
  - 9 Q. Okay. So what is the difference in the two?
- 04:51:47 10 A. The requirements for these ORS zones aren't
  - 11 applicable for vehicles in 2013.
  - 12 Q. I got you. But, again, there was nothing that -- no
  - 13 standard that kept Kawasaki from putting doors in?
  - 14 A. No.
- 04:52:11 15 Q. Now, you said something about 150 percent more stable
  - 16 on the tilt table than the J2258 required?
  - 17 **A.** Yes.
  - 18 Q. Do you get that because J2258 requires it to be
  - 19 stable at 20 degrease, and so since this one was at 30,
- 04:52:30 20 that was your 150 percent?
  - 21 A. Right. 30 divided by 20 is 150 percent.
  - 22 **Q.** No other source for that 150 percent more stable?
  - 23 A. Right. My testimony.
  - 24 Q. Yeah. And that is a static stability?
- 04:52:42 25 **A.** Right. That is, yes.

And these things typically are moving when they're 1 Q. 2 being in use? 3 Α. Sure. That's when they have a risk of rolling over? 4 Q. Depends on how they're operated, sure. 5 Α. 04:52:52 Not much of a risk rolling over when it is sitting 6 Q. 7 still? 8 A. Depending on what kind of slope you're parked on. 9 THE COURT: When you get to a convenient 10 stopping point, we will let this good jury go home for the 04:53:09 11 weekend. 12 MR. WEST: Well, when you say it like that, 13 Judge, I think this is a good stopping point. 14 THE COURT: You seemed to be pausing. 15 MR. WEST: I was switching. 04:53:19 16 THE COURT: If it is, indeed, a good stopping 17 point, then I'll take you at your word. 18 Ladies and gentlemen, we have made it 19 through our first week. I think my prediction on timing, 20 it's still in the realm of guess, but it's not a bad guess. 04:53:32 21 That's as much as I can say. Don't take it to the bank. 22 But do have a nice weekend. You have three days. Enjoy 23 them all. 24 Remember not to do any independent 25 research. Remember to keep an open mind on every issue. 04:53:47 KATHY MILLER, RMR, CRR - kathy@miller-reporting.com

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1 Remember not to communicate or allow any communication with
         2 you in any way, shape, or form about anything relating to
         31the case.
                            If you have taken notes, you know what to
         4
        5 do with them. They stay in the jury room over the weekend
04:54:03
         6 as well.
         7
                            Enjoy the weekend. And I look forward to
         8 continuing to present the case to you at 8:30 on Tuesday
         9 morning. Thank you for your close attention, your
       10 cooperation, and your good cheer. All are appreciated.
04:54:19
       11 Thank you.
          (Excerpt concluded at 4:54 p.m.)
       13
                          COURT REPORTER'S CERTIFICATE
       14
       15
                I, Kathleen K. Miller, certify that the foregoing is a
       16 correct transcript from the record of proceedings in the
       17 above-entitled matter.
       18
                                            _Kathleen K Miller
       19 DATE: Dec. 23, 2019
                                    Kathleen K Miller, RPR, RWR, CRR
       20
       21
       22
       23
       24
       25
                  KATHY MILLER, RMR, CRR - kathy@miller-reporting.com
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\$	<b>126.12</b> [1] - 70:20	<b>2,000</b> [1] - 42:18	34-point-something	<b>60</b> [3] - 3:4, 122:11,
	<b>126.16</b> [1] <b>-</b> 49:10	<b>20</b> [13] - 21:3, 21:6,	[1] - 65:15	122:16
<b>\$60,000</b> [1] - 101:10	<b>12th</b> [1] - 108:10	31:24, 32:3, 32:10,	<b>34.6</b> [1] - 66:2	<b>61</b> [1] <b>-</b> 3:5
	<b>130</b> [1] - 126:23	106:22, 120:22,	<b>34.8</b> [5] - 78:18, 79:10,	<b>620</b> [1] - 21:10
•	<b>135</b> [1] - 141:16	121:14, 122:9,	80:4, 127:4, 127:5	<b>63101</b> [1] <b>-</b> 2:4
	<b>14</b> [11] - 33:5, 63:24,	136:19, 148:4,	<b>35</b> [3] <b>-</b> 29:17, 65:16,	
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